Network Camera

FXC-1201M

User Manual

V3.0.0

eneo®

Safety Instructions

- Read these safety instructions and the operation manual first before you install and commission the camera.
- Keep the manual in a safe place for later reference.
- Protect your camera from contamination with water and humidity to prevent it from permanent damage. Never switch the camera on when it gets wet. Have it checked at an authorized service center in this case.
- Never operate the camera outside of the specifications as this may prevent the camera functioning.
- Do not operate the cameras beyond their specified temperature, humidity or power ratings. Operate the camera only at a temperature range of -10°C to +50°C and at a humidity of max. 90%.
- To disconnect the power cord of the unit, pull it out by the plug. Never pull the cord itself.
- Pay attention when laying the connection cable and observe that the cable is not subject to heavy loads, kinks, or damage and no moisture can get in.
- The warranty becomes void if repairs are undertaken by unauthorized persons.
  Do not open the camera housing.
- Never point the camera towards the sun with the aperture open. This can destroy the sensor.
- Installation, maintenance and repair have to be carried out only by authorized service centers. Before opening the cover disconnect the unit from mains input.
- The fitter is responsible for the system of protection being followed in accordance with the technical data, e.g. by sealing of the cable outlet with silicone.
- Contact your local dealer in case of malfunction.
- Only use original parts and original accessories from Videor E. Hartig GmbH.
- Do not use strong or abrasive detergents when cleaning the dome. Use a dry cloth to clean the dome surface.
  In case the dirt is hard to remove, use a mild detergent and wipe gently.
- **During assembly, care must be taken to ensure that existing seals are correctly inserted and are not displaced as a result of assembly.**
  You must not continue to use damaged seals.

NOTE: This is a class A digital device. This digital device can cause harmful interference in a residential area; in this case the user may be required to take appropriate corrective action at his/her own expense.

Table of Contents

Chapter 1 Introduction....1
1.1 Network camera Functions and Features....1
1.2 Applications....2
1.3 Package Contents....2
Chapter 2 Installation....3
2.1 Panels Description....3
2.1.1 Side Elevation of the Camera....3
2.1.2 Rear Panel Description....4
2.2 Product Installation....5
2.2.1 Box camera Installation....5
2.2.2 Topological graph of network camera....6
Chapter 3 Network Camera Connection....7
Chapter 4 Network Access....9
4.1 Access over IE Browser....9
4.1.1 Live View....10
4.1.2 Parameters Configuration....12
4.2 Access over Client Software....23
4.2.1 Client Software Installation....23
4.2.2 Live View....25
Chapter 5 Access over Internet....29
5.1 Access network camera with static IP....29
5.2 Access network camera with dynamic IP....31
Chapter 6 Menu Introduction....34
6.1 Main Menu....34
6.2 Menu Introduction of 2.0 Megapixels CMOS Network Camera....35
6.2.1 Language settings....35
6.2.2 Flicker Control....35
6.2.3 Resolution settings....35
6.2.4 Frame settings....36
6.2.5 Shutter settings....36
6.2.6 Auto Gain settings....37
6.2.7 DAY / NIGHT Settings....37
6.2.8 White Balance Settings....38
6.2.9 Effect Mode settings....38
6.2.10 Mirror mode settings....39
6.2.11 ePTZ settings....39
Chapter 7 Specifications and Drawings....40
7.1 Specifications....40
7.1 Dimensional Drawings....42
Appendix 1 SADP Introduction....43
Appendix 2 Port Map....45
Appendix 3 Pin Definition....47

Chapter 1 Introduction

Network camera is a kind of embedded digital surveillance product that combines the features of both traditional analog camera and net DVS (Digital Video Server). Due to the embedded Linux operation system and the latest Davinci hardware platform of TI, the system operates with high scheduling efficiency. Furthermore, the firmware is burned in the flash, which makes the product small, reliable and highly stable.

1.1 Network camera Functions and Features

Functions:

- Network Function: Support the TCP/IP protocols and IE browsing.
- Alarm Function: The product includes 1 channel of alarm signal input and 1 channel of alarm on/off output, and supports motion detection.
- Voice Talking: Support bidirectional voice talking.
- User Management: Support multilevel right management. The administrator can create up to 15 separate users with different right levels, which highly improves the system security.

Compression Functions:

- Support 1 channel video signal and standard H.264 encoding compression, which supports both variable bit rate and variable frame rate; besides, you can self-define both the video quality and its compressed bit rate.

Remote Control:

- The product offers a 10M/100M self-adaptive Ethernet interface.
- Support TCP/IP, HTTP, DHCP, DNS, DDNS, RTP/RTSP, PPPoE, SMTP, NTP protocols.
- Set the parameters, browse real time videos or check the camera performance through software or IE, and store the compressed bit rate through network.
- Support remote upgrades and maintenance.

1.2 Applications

This camera is ideal for remote control network applications. E.g.:

1. Network surveillance for bank counters, supermarkets and factories.
2. Remote surveillance for nursing homes, kindergartens and schools.
3. AI janitors.
4. AI building/district management systems.
5. Self-service systems of power plants.
6. Pipelining and warehouse monitoring.
7. Surveillance for airdrome, railway station, bus stop etc.

1.3 Package Contents

1. Camera × 1
2. CS to C Adapter × 1
3. User Manual × 1
4. CD × 1

Chapter 2 Installation

NOTE:

1. Please check if all the items on the package list have been included with your camera.
2. Read the following contents carefully before the installation.
3. Make sure that all the related equipment is power-off during the installation.
4. Check the power supply to prevent any damage caused by mismatching problems.
5. If the product does not operate properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. Users are responsible for any problem caused by modification or repairing without authorization.

2.1 Panels Description

2.1.1 Side Elevation of the Camera

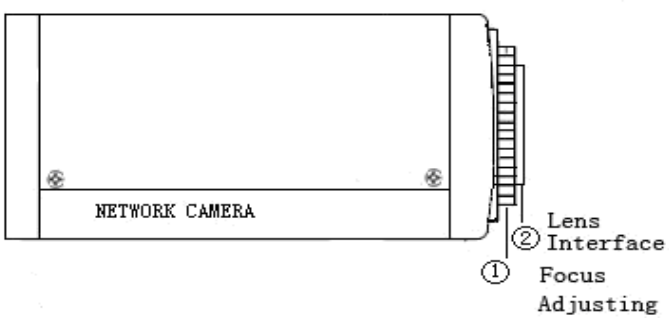


Fig 2.1.1 Side Elevation

2.1.2 Rear Panel Description

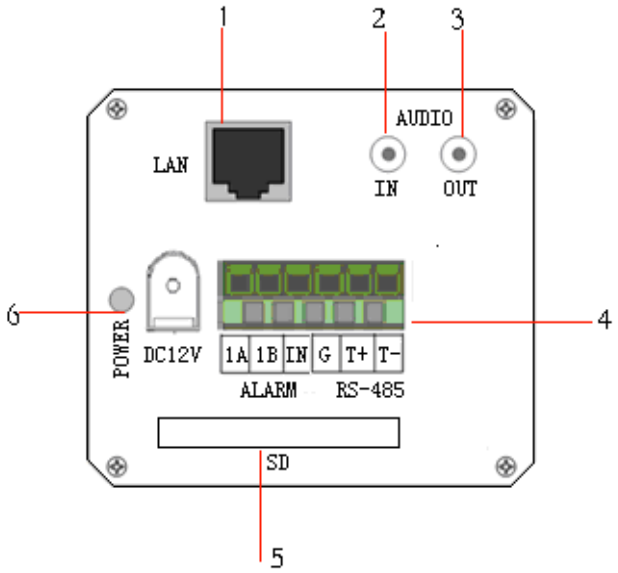


Fig. 2.1.3Rear Panel

1. Standard Ethernet (UTP) RJ45 (10M/100M self-adaptive).
2. 1 channel voice talk input,3.5mm audio interface, 2.0 ~ 2.4Vp-p, 1kΩ.
3. 1 channel voice talk output, 3.5mm audio interface, electric line level, 600Ω.
4. 1 channel alarm output (1A 1B). 1 channel alarm input signal (IN,G). RS-485 bus interface (T + T-).
5. SD card slot (Support SDHC).
6. Power supply interface of 12VDC, ±10%.

2.2 Product Installation

2.2.1 Box camera Installation

Box camera can be fixed in both wall and ceiling. Customers can choose whichever way according to their specific needs. Please follow the steps below: (Take fixing in ceiling as an example, fixing on wall follows the same rule).Choose the fixing method and fix the camera bracket accordingly. If it is on wall, then you need to fix the expand bolt (note: the mounting hole of the expand bolt should align with the bracket) before fixing the bracket. If the wall surface is wooden, the first step can be ignored and you can use the self-tapping screw to directly fix the bracket. Please note that the wall on which the camera is fixed should be able to bear at least three times the weight of the bracket and the camera.

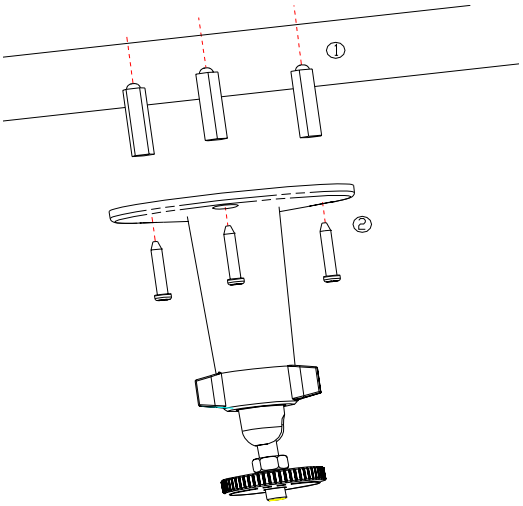


Fig 2.2.1 Fix Ceiling Bracket

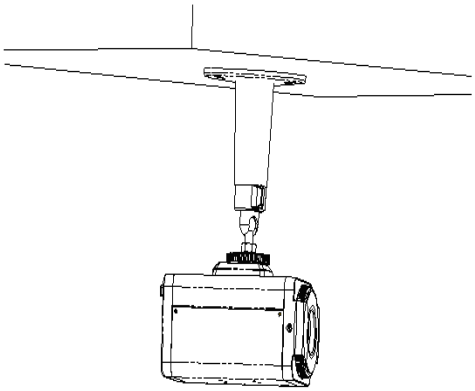


Fig 2.2.2 Fix Camera

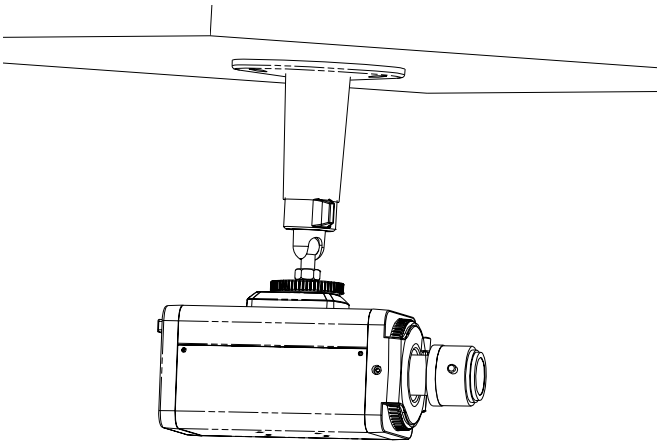
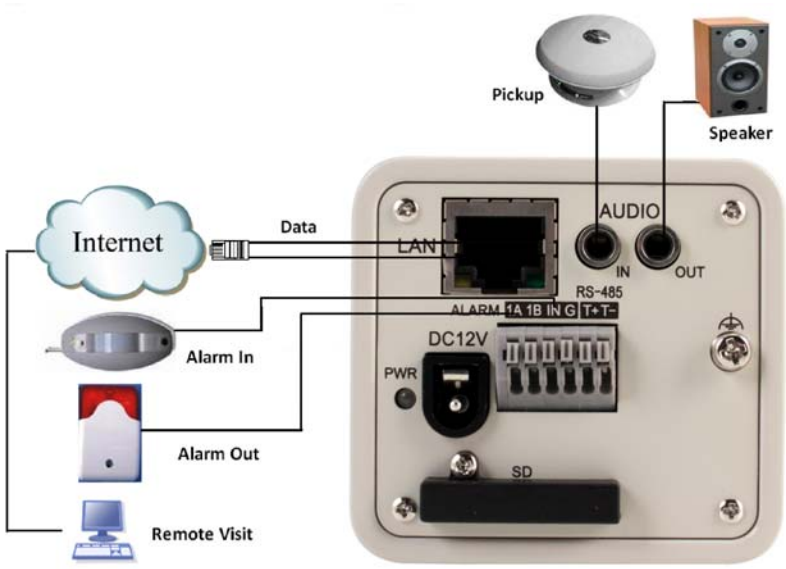


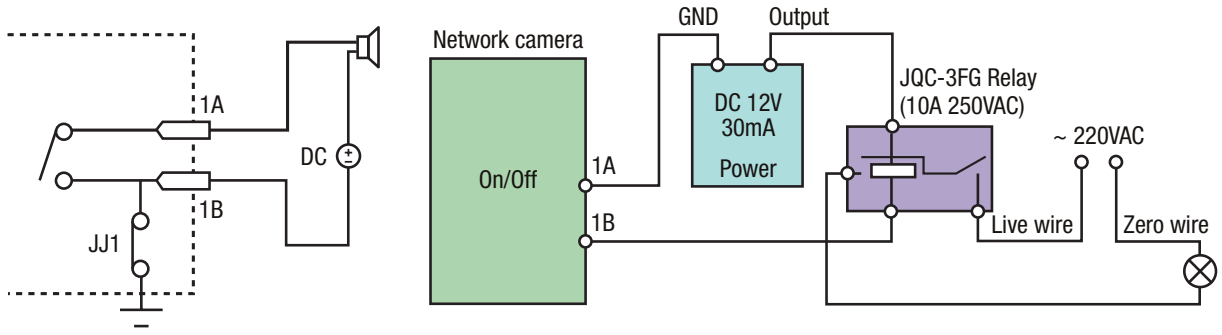
Fig 2.2.3 Fix Lens

2.2.2 Topological graph of network camera

Megapixels Network Box Camera Application:



Notice:



The alarm output is an on/off output that requires external power supply on connection.
The external power supply shall be 12V DC/30mA, or use AC with external relays.
Equipment damage or electric shock may cause if without relays.

Chapter 3 Network Camera Connection

Two methods can be used to connect between network camera and PC, shown as below:

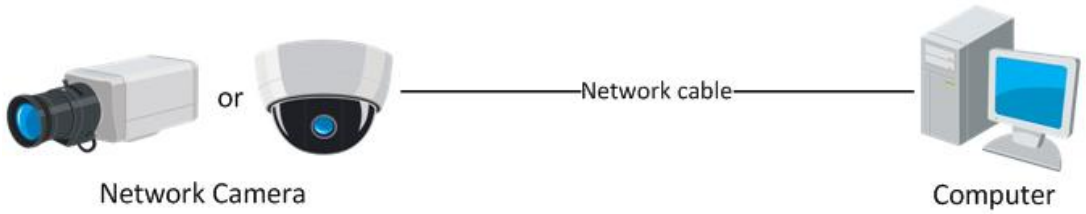


Fig. 3.1 Cross Line Connection

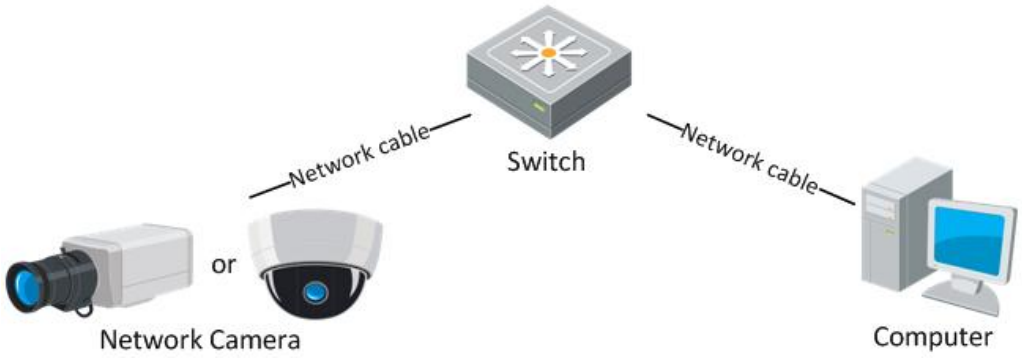


Fig. 3.2 Direct Line Connection

Before visiting network camera over network, user should acquire its IP address first. SADP is a software tool which can automatically detect network device in the LAN and give the device's information like IP address, mask, port number, device serial number, software version, etc., shown as Fig. 3.3.

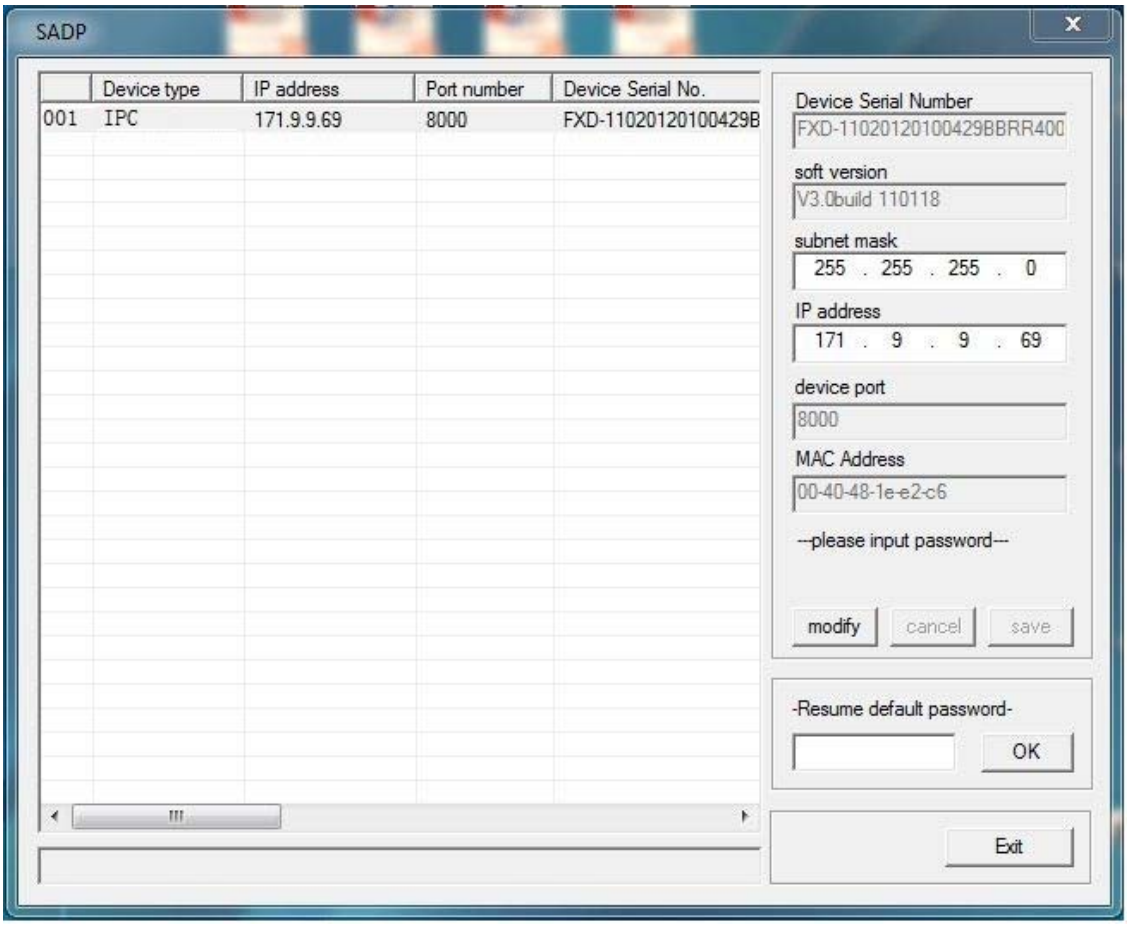


Fig. 3.3

Select the device, and set its IP address and mask at the same network segment with the PC. For the detailed introduction of SADP, please refer to Appendix 1.

Note: The network camera is set with the factory default IP address of "*192.0.0.64"*, the port of "*8000"*, the super user name of "*admin"* and the password of "*12345"*.

Chapter 4 Network Access

After hardware installation, user can view live video and configure parameters for the network camera, including IP address, subnet mask and port number, etc. The following two methods can be used to access the camera:

1. View live video and configure parameters over IE browser.
2. View live video and configure parameters over client software.

4.1 Access over IE Browser

Before access to the camera over IE browser, user should adjust the security level.

Open the IE browser, and set the security level to *Medium* in T*ools/ InternetOptions/Security/Custom Level...*, and enable or prompt Activex Control and Plug-in directly as well.

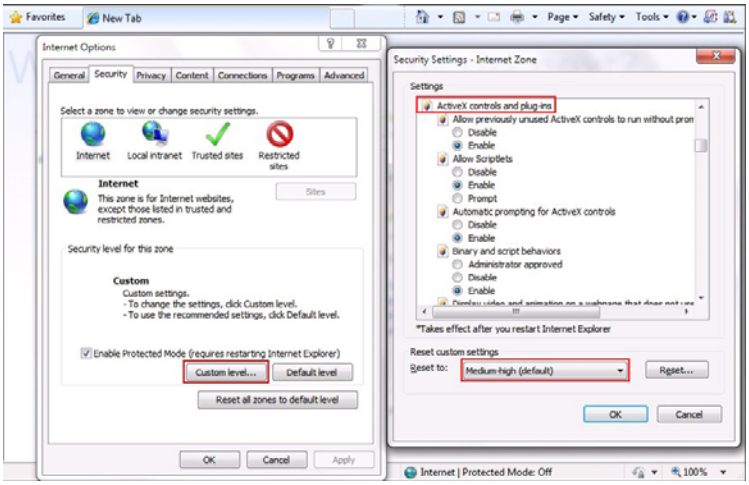


Fig. 4.1.1 Adjust the Security Level

4.1.1 Live View

Step 1: Install Active-X Control
Type the IP address of the network camera and press *Enter*, then the ActiveX mention dialog will pop up.

Click *Install* to install the ActiveX control.

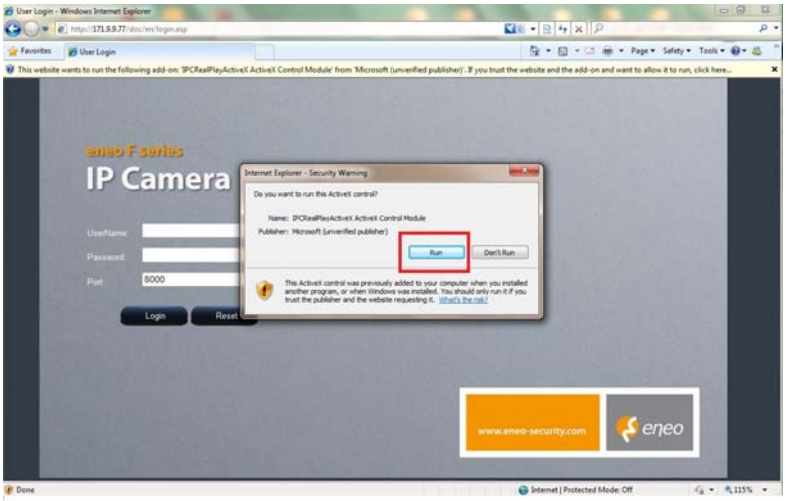


Fig. 4.1.2 Install the ActiveX Control

Step 2:
Input the *Username* (default: admin), *Password* (default: 12345) and *Port* (default: 8000) of the camera, and then click [Login].

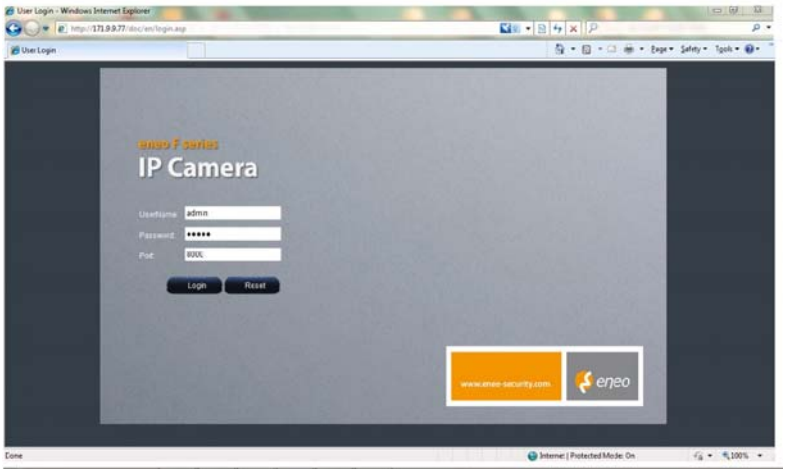


Fig. 4.1.3 Login Interface

Step 3:

After successful login, user is allowed to view the live video. Refer to Figure 4.1.4.

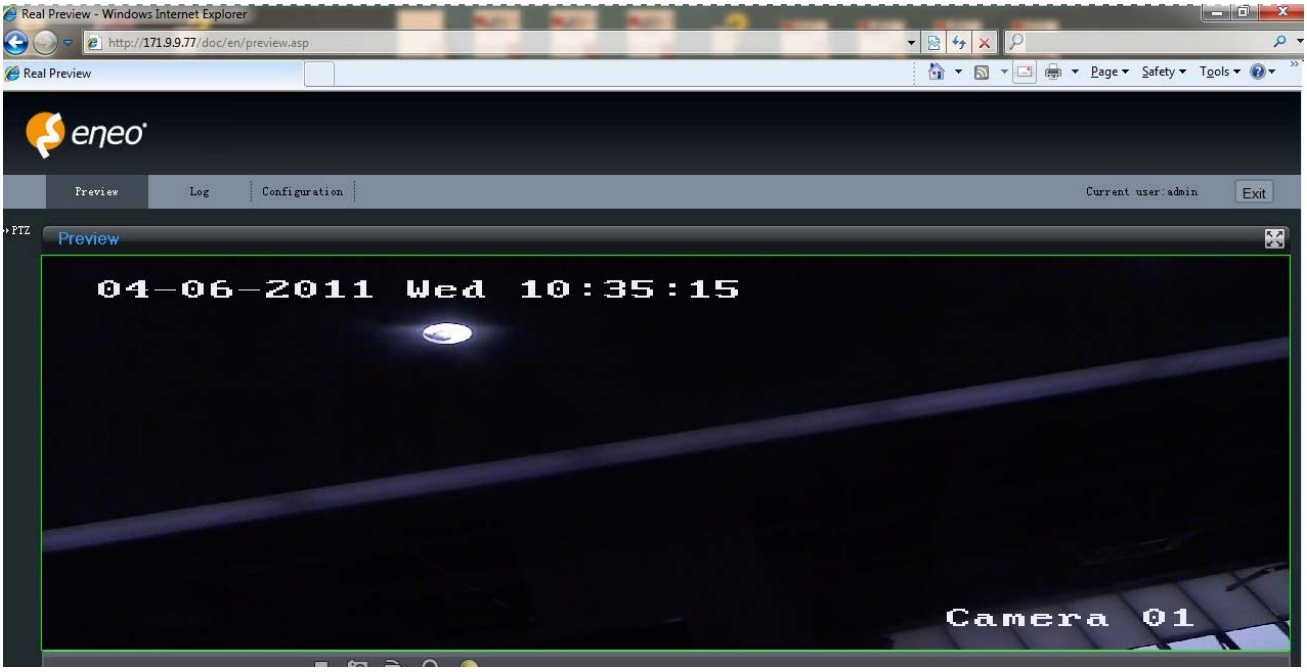


Fig. 4.1.4 Live View Page

Icons on Live View Page:

Icon	Description
	Full-screen display mode
	Exit full-screen display mode
	Start Preview
	Stop Preview
	Capture Picture
	Start/Stop Record
	Digital Zoom
	Video Parameters

Digital Zoom:

Click mouse in the desired position of live video image and scroll the mouse to realize zoom in and zoom out function.

Video Parameters:

Icon	Description
	Brightness: 0~100 configurable
	Contrast: 0~100 configurable
	Saturation: 0~100 configurable
	Hue: 0~100 configurable
	Gain: 0~100 configurable
	Exposure time: 0~40000 configurable
	Restore default

Fig. 4.1.5 Video Parameters

4.1.2 Parameters Configuration

Click ***Configuration*** to enter the Parameters Configuration interface.

4.1.2.1 Local Configuration

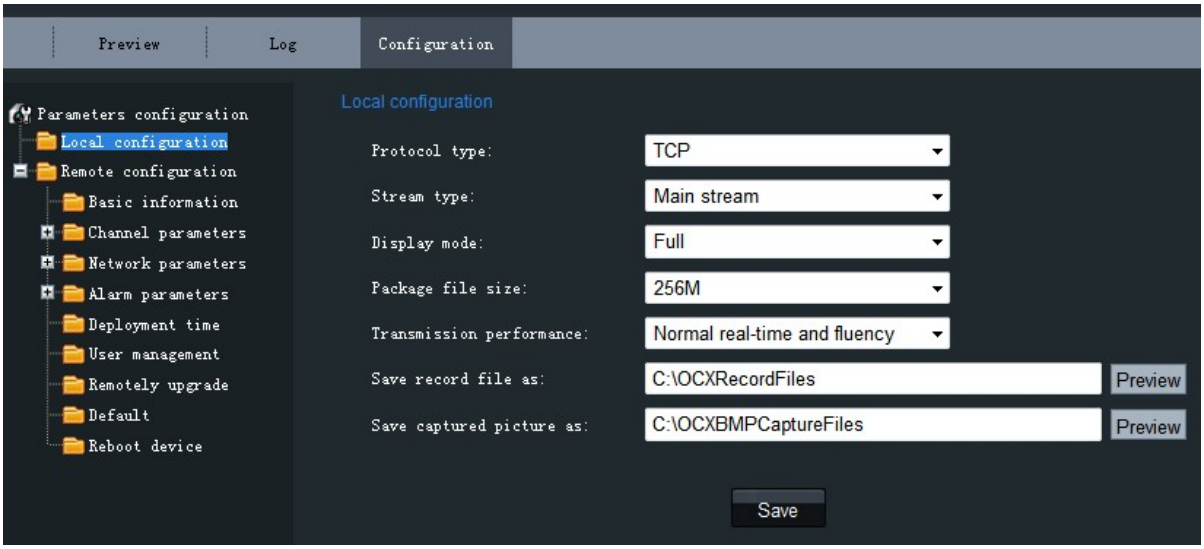


Fig. 4.1.6 Local Configuration

Local Configuration:

Parameters	Description
Protocol type	TCP and UTP selectable
Stream type	Main stream and Sub stream selectable
Display mode	Full-screen, 4:3 mode, 16:9 mode or adjustable to resolution
Package file size	128M, 256M, 512M selectable
Transmission performance	Shortest delay mode, good real-time, normal real-time and fluency and good fluency options selectable
Save record file as	The default directory for saving record files is C: \OCXRecordFiles, which can be modified by user
Save captured picture as	The default directory for saving captured files is C:\OCXBMPCaptureFiles, which can be modified by user

4.1.2.2 Remote Configuration

Basic Information:
In the Basic Information settings interface, user is allowed to set the Device Name and Device ID, as well as view the information of IP camera, including Device Description, Device Location, MAC address, Device Type, Device SN, Firmware Version, and U-boot Version.

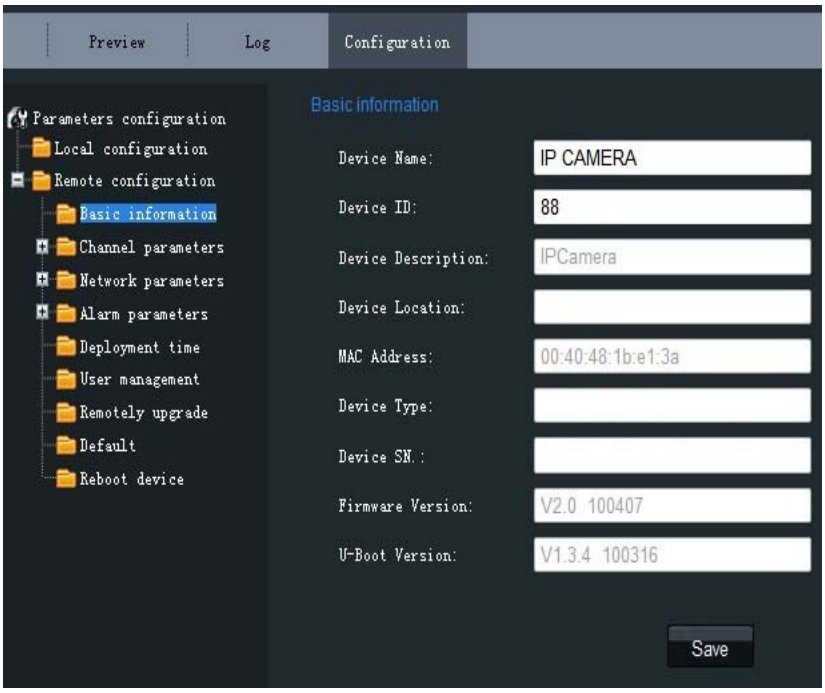


Fig. 4.1.7 Basic Information

Channel Parameters → Display Setting:

According to different requirements, enable the display of *Date&Time* and *Week* by clicking the checkbox. Different date formats can be selected.

The OSD Status can be set to transparent & flickering, transparent & unflickering, nontransparent & flickering, or nontransparent & unflickering.

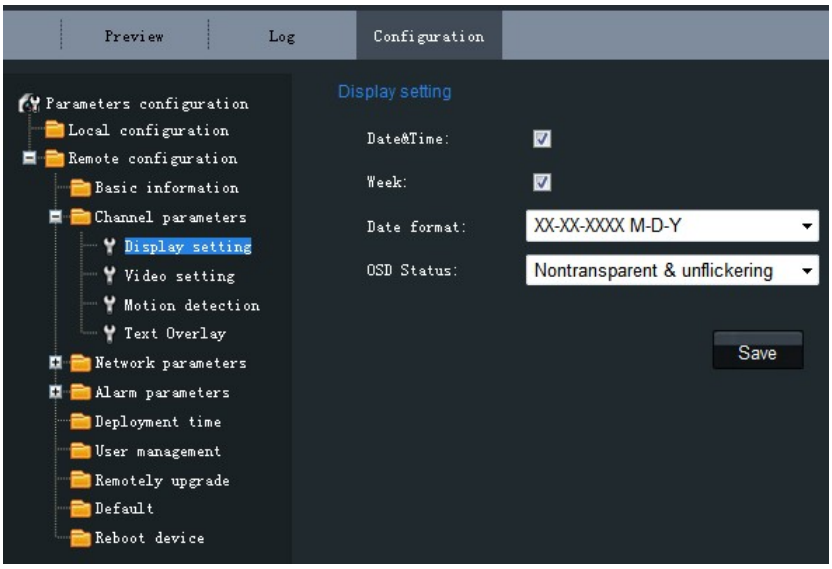


Fig. 4.1.8 Display Settings

Channel Parameters→Video Settings:

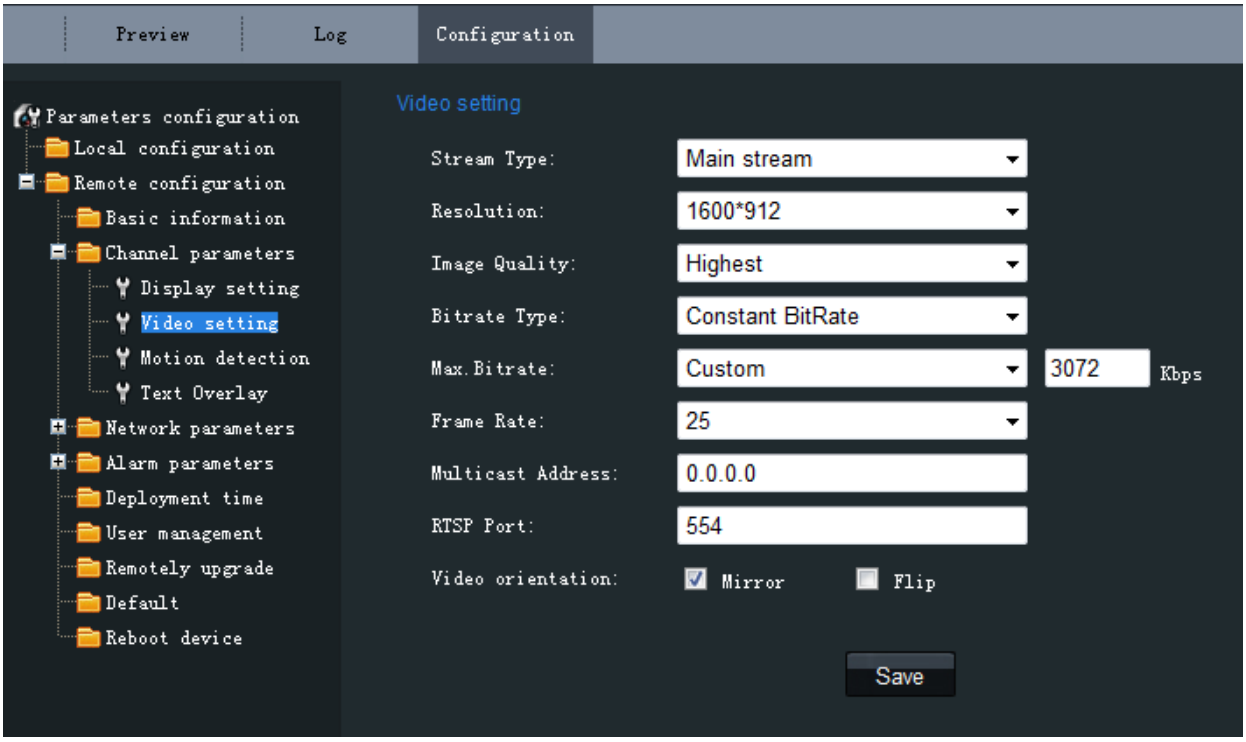


Fig. 4.1.9 Video Settings

Parameter	Description
Stream type	Select stream type to Main stream or Sub stream
Resolution	Select the resolution for your need,
Image Quality	Select image quality to Highest, High, Medium, Low, Lower or Lowest
Bitrate Type	Select the bitrate type to Constant bitrate or Variable bitrate
Max. Bitrate	Select or custom bitrate according to the resolution
Frame Rate	Select a proper frame rate for the corresponding resolution.
Multicast	Set the multicast address, with the default multicast of 0.0.0.0
RTSP Port	Set the RTSP port, with the default RTSP port of 554
Mirror	Change the left and right direction of the picture, like mirror
Flip	Rotate the picture 180°. Change the bottom of the picture to the top

Channel Parameters →

Motion Detection Setting:

Select the checkbox of *Enable motion detection* to enable this function.

Zone Settings:

Click *Start draw* button to draw motion detection zone by clicking and dragging the mouse in the live video image. User is allowed to draw multiple motion detection zones in the same picture. When all zones have been set, click *Stop draw* to finish drawing.

Sensitivity:

The sensitivity level can be set to 0, 1, 2, 3, 4 and 5. When it is set to 0, the sensitivity is disabled.

Linkage:

The Linkage method can be selected to either *Email link* or *Trigger alarm output*.

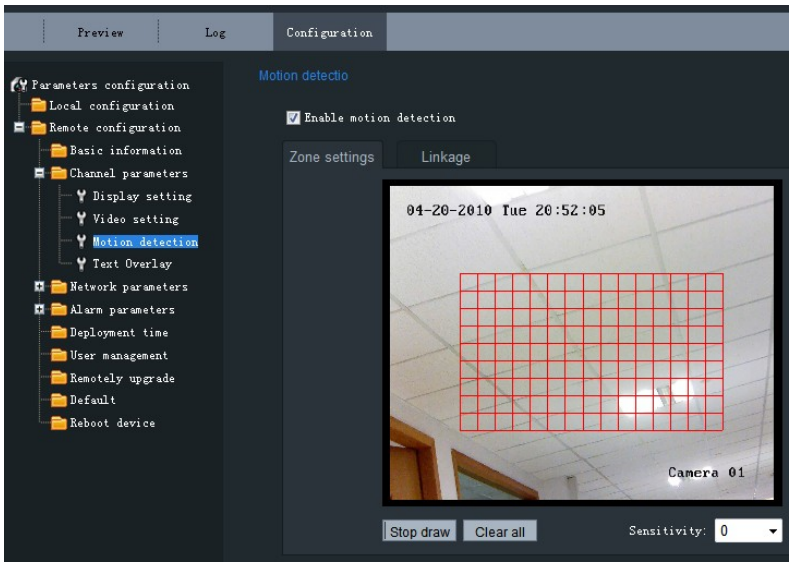


Fig. 4.1.10 Motion Detection Zone Settings

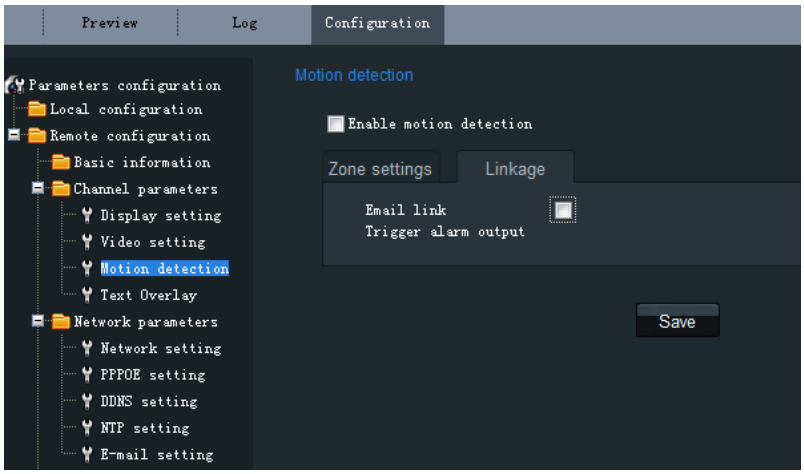


Fig. 4.1.11 Motion Detection Linkage Settings

Channel Parameters → Text Overlay Setting:

Input the characters in the *Text Information* box and define the OSD location in the image by setting the *XPosition* and *YPosition*, and then select the checkbox of *OSD Text*. After clicking *Save* to finish the settings, the defined title will be displayed on the image.

Note:

The values of XPosition and YPosition refer to the position relative to the origin as the upper left corner of the image.

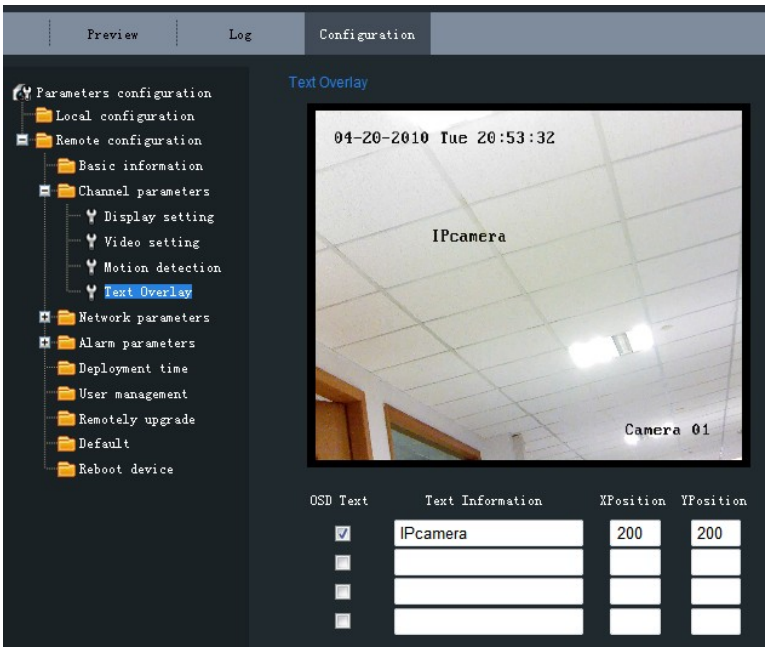


Fig. 4.1.12 Text Overlay Settings

Network Parameters → Network Setting:

Set the IP Address, Subnet Mask, Gateway and DNS Server of the network camera.

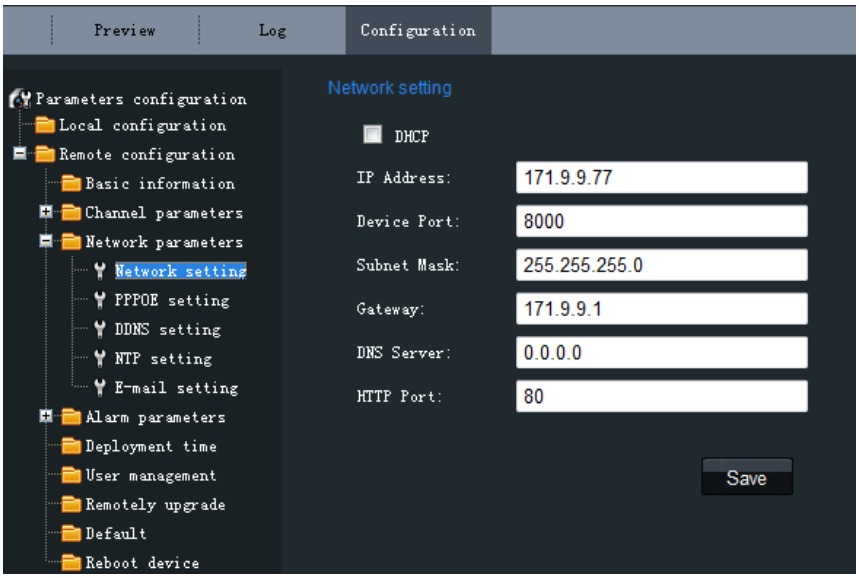


Fig. 4.1.13 Network Settings

Network Parameters → PPPOE Setting:

Click the checkbox of *Enable PPPOE* to enable this function.

Input the PPPOE user name and password in the text box and then click *Save* to finish settings. After reboot, the camera will obtain a public IP address.

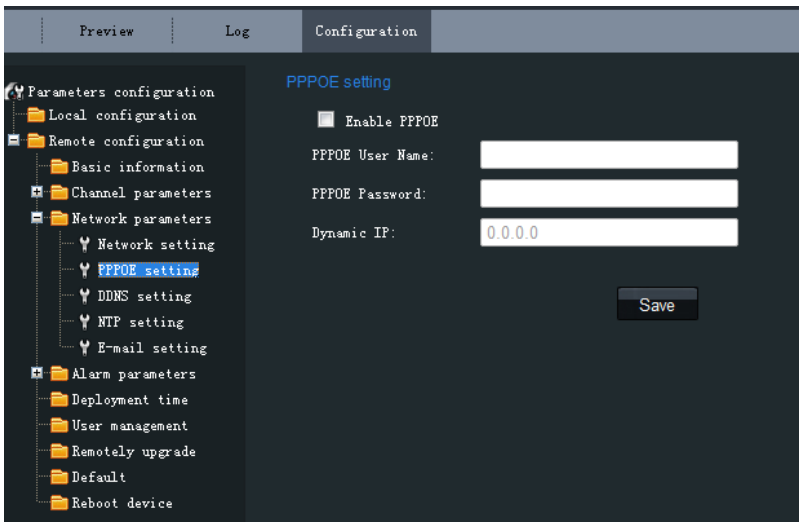


Fig. 4.1.14 PPPOE Settings

Network Parameters → DDNS Setting:

Click the checkbox of *Enable DDNS* to enable this function.

The protocol type can be set to DynDNS.

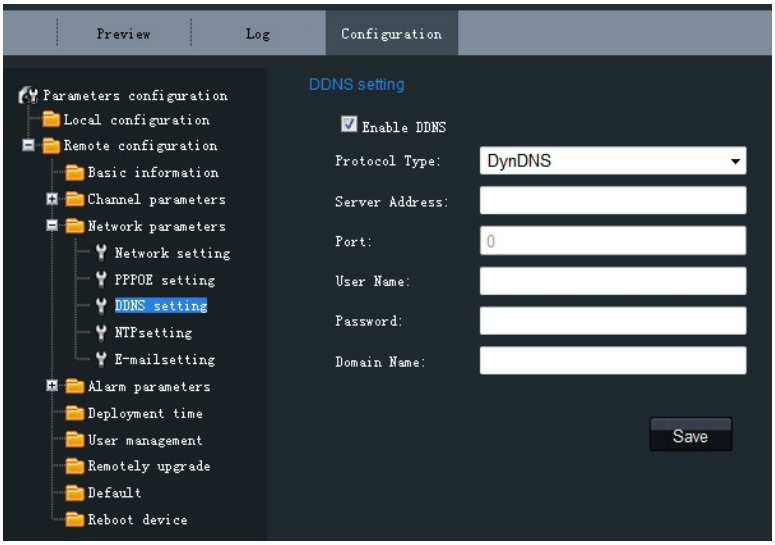


Fig. 4.1.15 DDNS Settings

If the protocol type is selected to DynDNS, please input the *Server Address*, e.g., members.dyn dns. org.

Port option is reserved and not configurable.

The *User Name* and *Password* refer to the user name and password registered in the DynDNS website.

The *Domain Name* refers to the domain name applied in the DynDNS website.

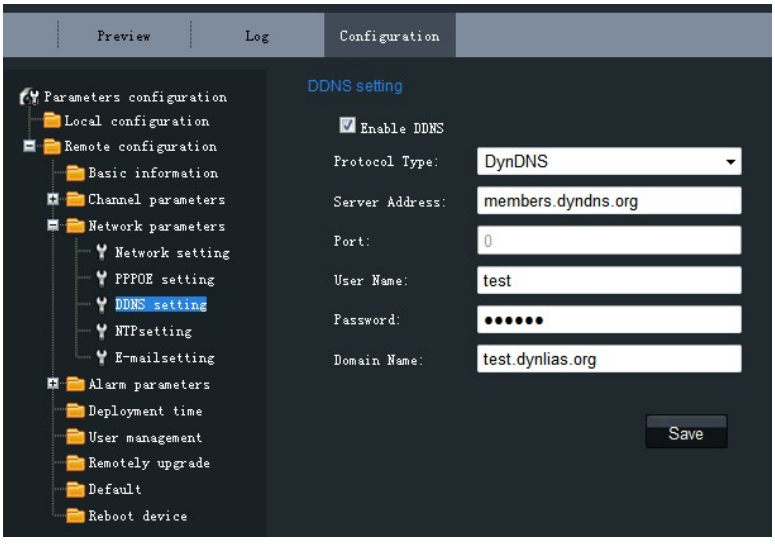


Fig. 4.1.16 DynDNS Settings

Network Parameters → NTP Setting:

Click the checkbox of *Enable NTP* to enable this function.

Input the *Server Address* and *Port* of NTP.

If the public network is applied, please input the NTP *Server Address* with provision of time sync service, e.g., 210.72.145.44.

In the private network is applied, the NTP software can be used to establish NTP server to achieve time synchronization.

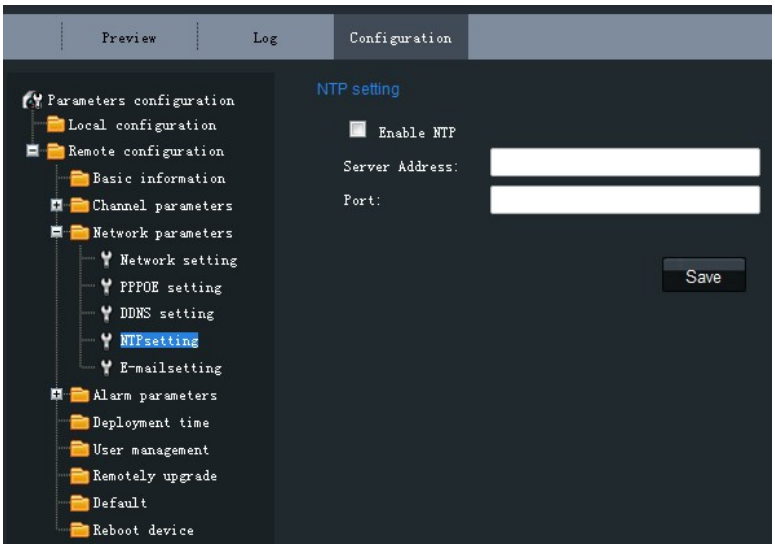


Fig.4.1.17 NTP Settings

Network Parameters → E-mail Setting:

Through E-mail settings, the alarm message can be sent to the designated E-mail address when alarm event occurs.

Input the SMTP server, SMTP port, user name, password, E-mail sender and receiver, JPEG can be attached in this mail by activating Attachment option, and finally click *Save* to finish E-mail settings.

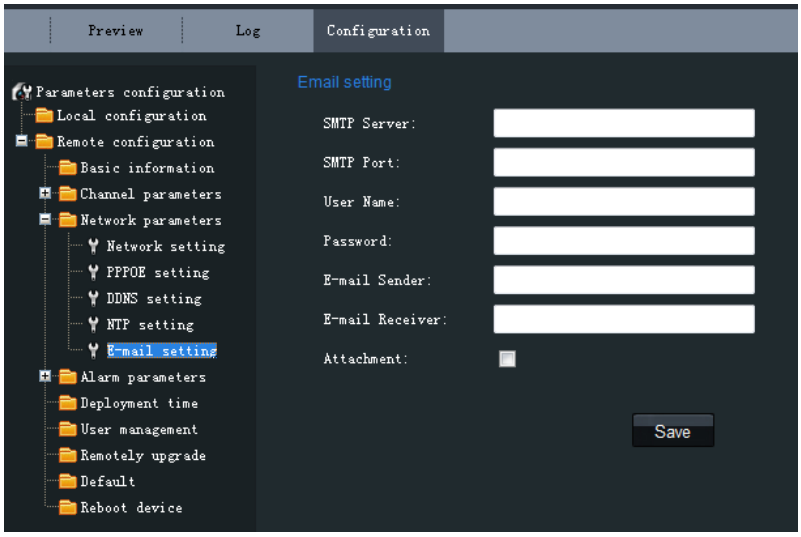


Fig. 4.1.18 E-mail Settings

Alarm Parameters → Alarm Input Setting:

Set the type of *Relay Status* to NC or NO.

The *Linkage* method can be selected to *E-mail link* or *Trigger alarm output*.

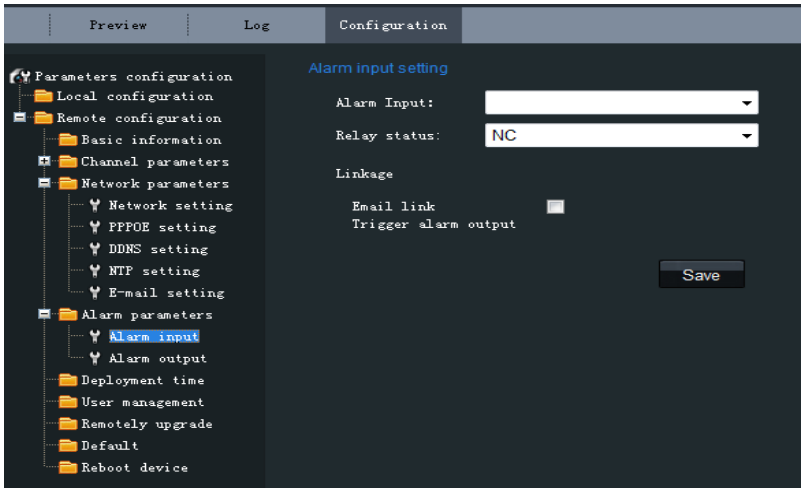


Fig. 4.1.19 Alarm Input Settings

Alarm Output → Alarm Output Setting:

The *Output Delay* refers to the length of time that the relay remains in effect after alarm occurs. The output delay time can be set to *5sec*, *10sec*, *30sec*, *1min*, *2min*, *5min*, *10min* or *Manual* (manually disable).

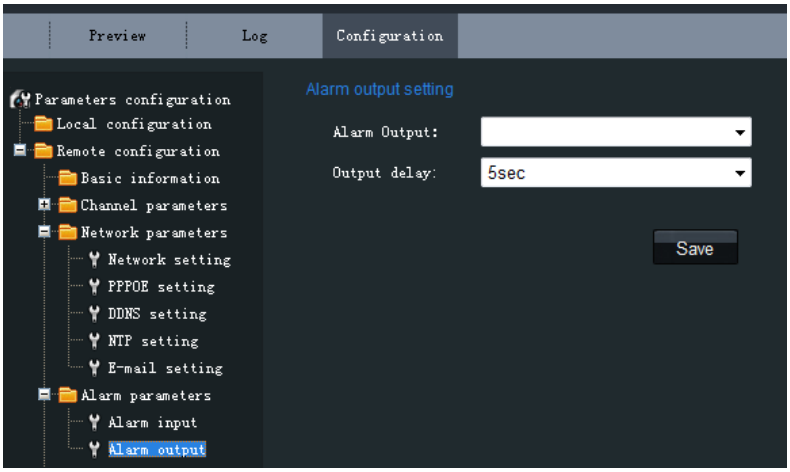


Fig. 4.1.20 Alarm Output Delay Settings

Alarm Deployment Time:

The *Deployment time* can be set to a day of the week or to all week, with a period configurable for each day.

Note: The alarm deployment time setting is valid only when the camera has already been configured with the motion detection, alarm input and alarm output functions.

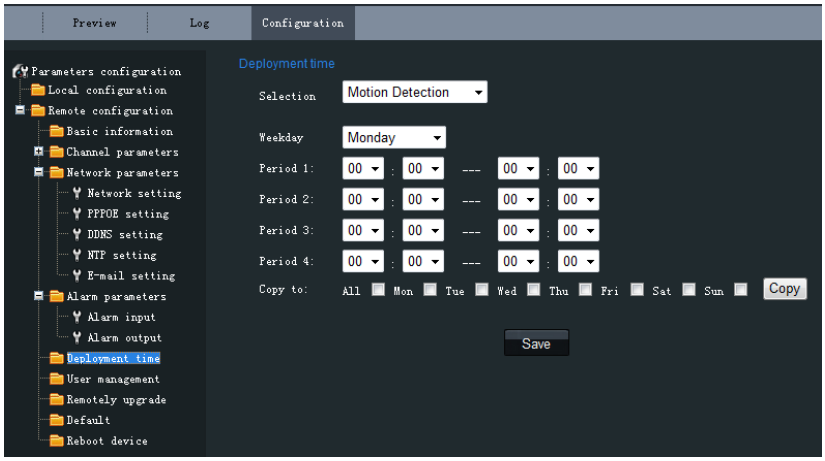


Fig. 4.1.21 Alarm Deployment Time Settings

User Management:

Fig. 4.1.22 User Management

When the current login user is *admin*, it is allowed to create other users. Up to 15 users can be created. Refer to Fig. 4.1.22.

Add User:

Click *Add* to enter the settings interface as shown in Fig. 4.1.23. Input the user name, password, IP address, MAC address, and then select user type. Finally, click *OK* to finish the user addition.

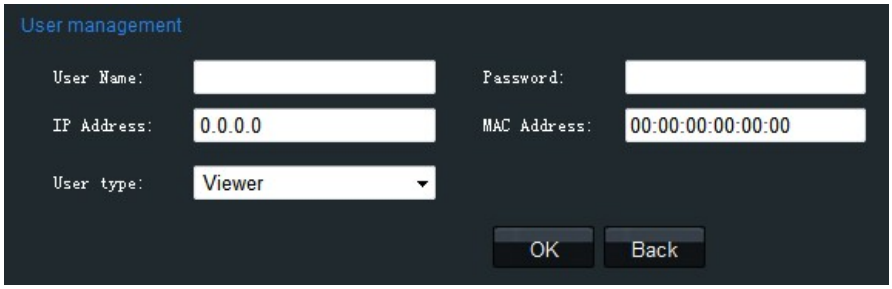


Fig. 4.1.23 Add User

Modify User:

Click *Modify* to enter the settings interface as shown in Fig. 4.1.24.

It is allowed to modify the user name, password, IP address, MAC address, and then select user type. Finally, click *OK* to finish the user modification.

Note: The user *admin* can only be modified with its password.

Fig. 4.1.24 Modify User

Remote Upgrade:

Click *Browse* to select the local update file and then click *Upgrade* to finish remote upgrade.

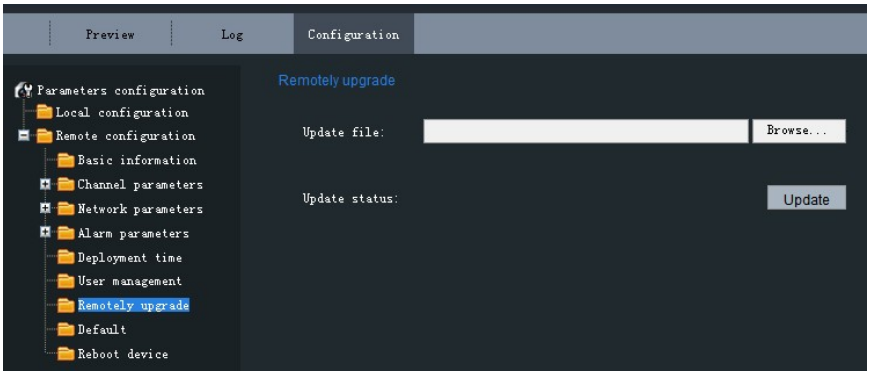


Fig. 4.1.25 Remote Upgrade

Restore Default:

Select *Full Mode* or *Basic Mode* to restore the default settings.

Note:

The *Full Mode* refers to restore all parameters to the factory default settings.

The *Basic Mode* refers to restore the parameters to factory default settings except IP address, subnet mask, gateway and port.

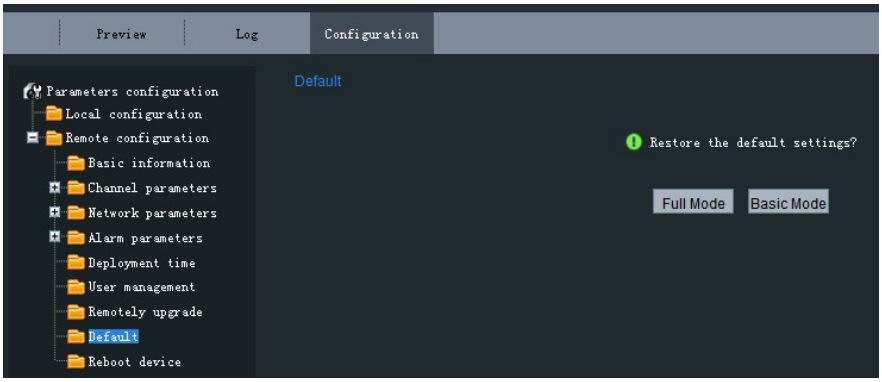


Fig. 4.1.26 Restore Default

Reboot Device:

Click *OK* to reboot the network camera.

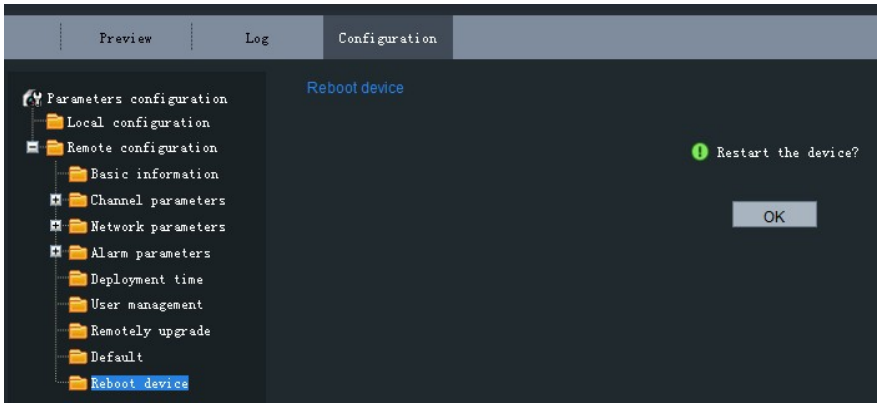
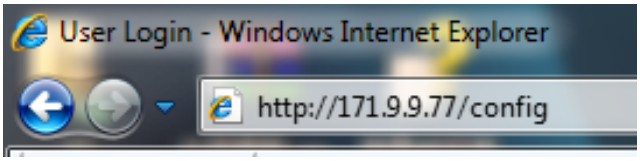


Fig. 4.1.27 Reboot Device

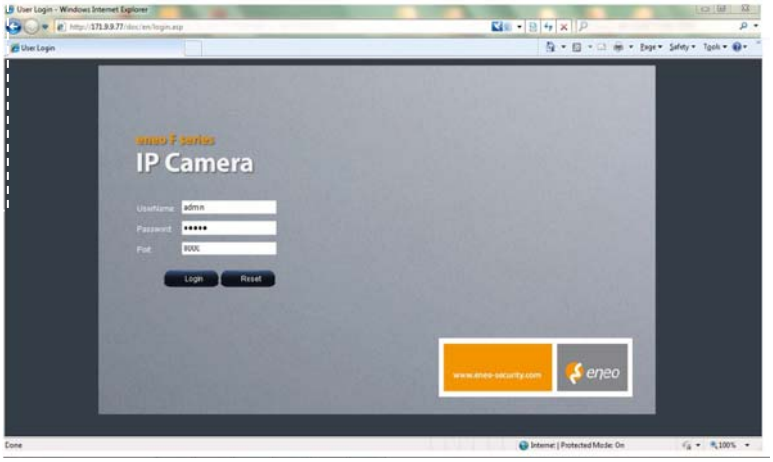
4.1.2.3 Advanced Configuration

Note: This chapter is applicable to professional configuration.

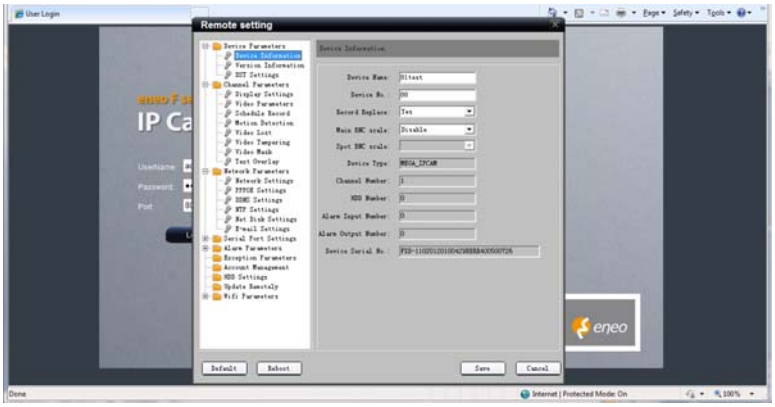
1: Input the IP address of the network camera and “config” (Such as http://171.9.9.77/config), and then click [Enter].



2: Type the *Username* (default: admin), *Password* (default: 12345) and *Port* (default: 8000) of the camera, and then click [Login].



3: The “Remote config” dialog will pop up, which has more advanced settings including schedule record and HDD settings and so on.



Please refer to “FINITRA_ENG.pdf” for a more detailed parameters configuration. You can find the document in the PC Operating System after the installation of client software FINITRA v. 2.0 by selecting “Start”-> “All Programs”-> “client software FINITRA v. 2.0”.

4.2 Access over Client Software

4.2.1 Client Software Installation

Note:

It is recommended to use the computer adopting INTEL P3, P4, C4, Core4 CPU, and the Intel chipset motherboard of well-known brands (Asus, Gigabyte, MSI, ECS, and INTEL etc.) to ensure the stability of the system. After testing, the following models of the current graphics cards support the installation of the client software: ATIRadeonX1650, X1600, X1550, X1300, X800, X600, X550, HD2400, HD2600, NVIDIA GeForce 8600GT, 8500GT, 8400GS, 7600, 7300LE, 6600LE, 6200LE, and INTEL915/945G. And the graphics driver must support hardware scaling function.

Step 1:

Double click 'Client Software Setup.exe' in the Windows Operating System. The 'Preparing Setup' dialog box will automatically pop up as shown Fig.4.2.1.

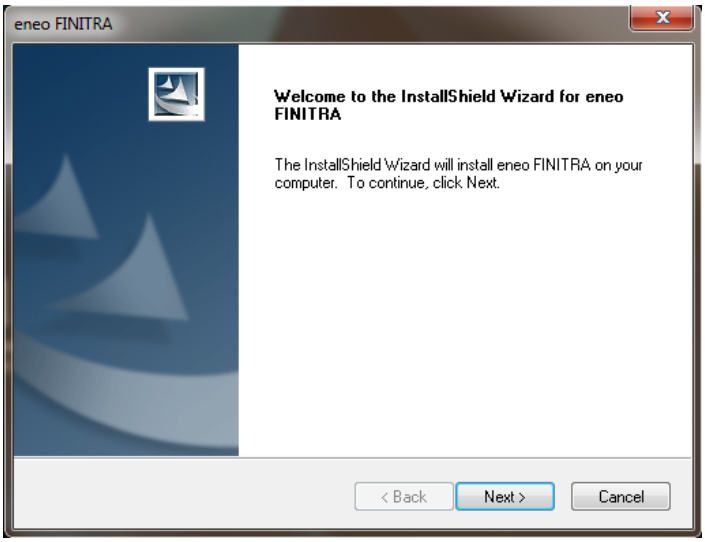

eneo FINITRA
Welcome to the InstallShield Wizard for eneo FINITRA
The InstallShield Wizard will install eneo FINITRA on your computer. To continue, click Next.
< Back
Next >
Cancel

Fig. 4.2.1 Client Software Installation

Step 2:

Input the User Name and Company Name, and then click *Next*.

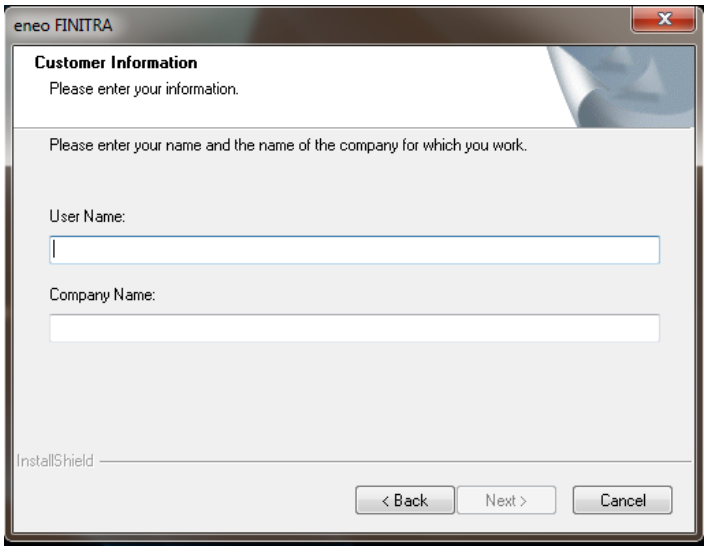


Fig.4.2.2 Customer Information

Step 3:

Select the destination folder and click *Next* to enter the next step.

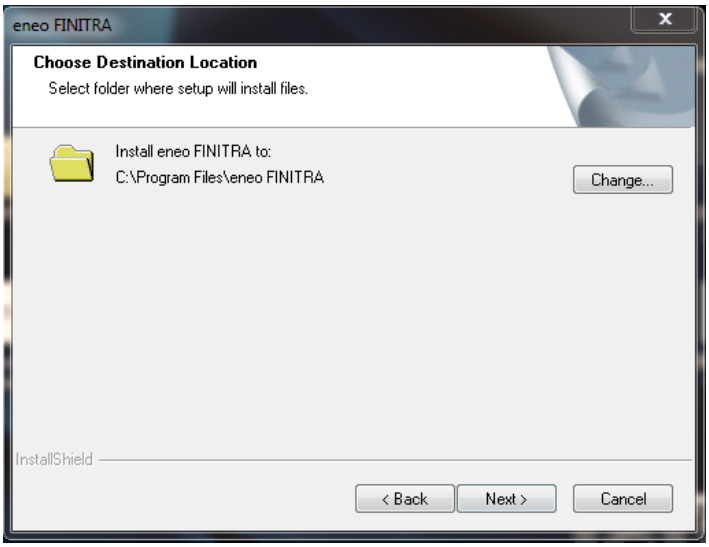


Fig. 4.2.3 Ready to Install the Program

Step 4:

Click *Install* to start installation till finishing the installation.

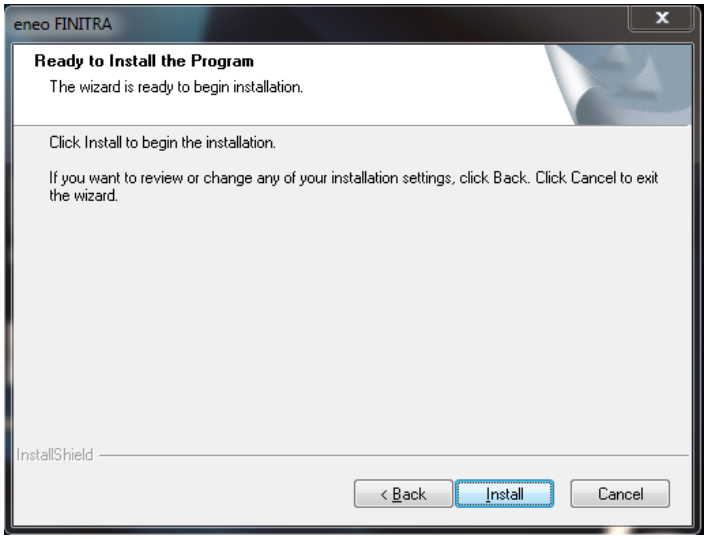

eneo FINITRA
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

Fig. 4.2.4 Installation

Step 5:

Click *Finish* to close the dialog box.

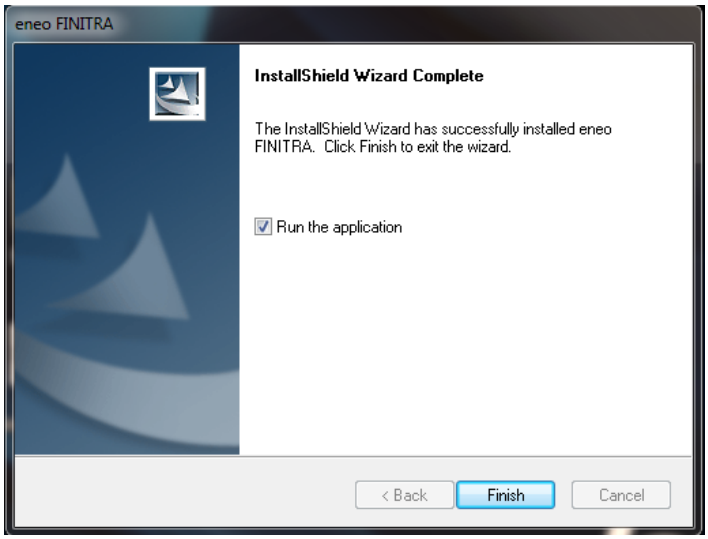


Fig. 4.2.5 Done

After the client software has been installed, you can find the remote client software through Start-> Programs from your PC.

4.2.2 Live View

After the installation of client software, there is a short-cut icon named "FINITRA (v2.0)" on computer's desktop. Please double click "FINITRA (v2.0)" to run the software.

Step 1:
Used for the first time:
User needs to register an *administrator* if the software is used for the first time.

Input *User name*, *Password*, *Verification*, and click *OK*, then user can log in as the administrator.

Fig. 4.2.6 Register Administrator

User login:
Input *User*, *Password* and click *Login* to enter the GUI window of the software.

Fig. 4.2.7 User Login

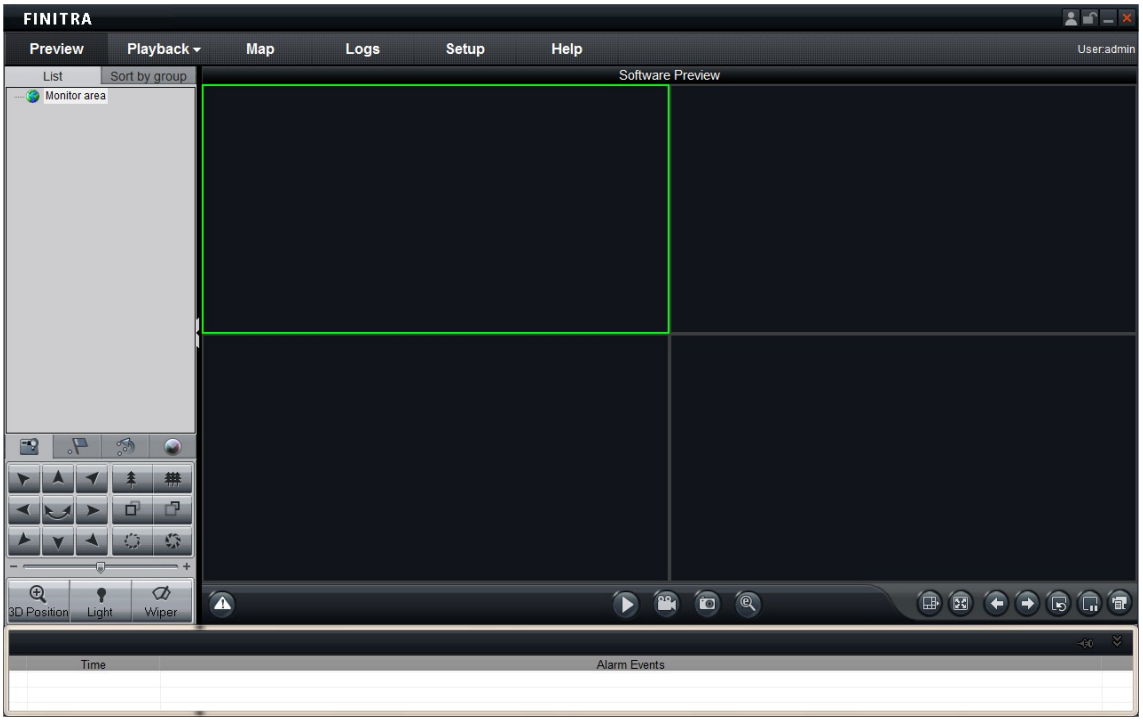


Fig. 4.2.8 GUI window of the software

Step 2:

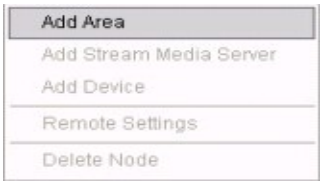
Click *Setup* to enter the configure mode, and then click *Device Management*.

Fig. 4.2.9 Device Management

Step 3:

Right click the left area, and then click *Add Area*.

Input *Area Name* for your need, and then click *OK* to add area.



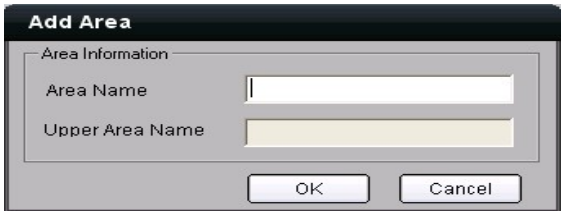


Fig. 4.2.10 Add Area

Step 4:

Right click the area that you add, and then click *Add Device* to add network camera.

Input “Device Name” for your need.
Select “Normal IP” from Register Mode.
Input network camera’s IP in *Device IP,* e.g. 192.0.0.64, *Port*: 8000, *User Name*: admin, *Password*: 12345.
Enter the number of cameras in “Channel No.” field, e.g. enter 4 for FNR-4004 NVR. “Multicast Address’ is optional and used for media broadcasting (D type IP address).
Finally, click *OK* to finish settings.

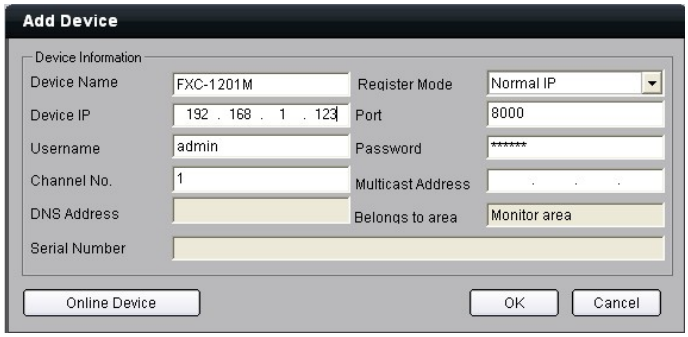


Fig. 4.2.11 Add Device

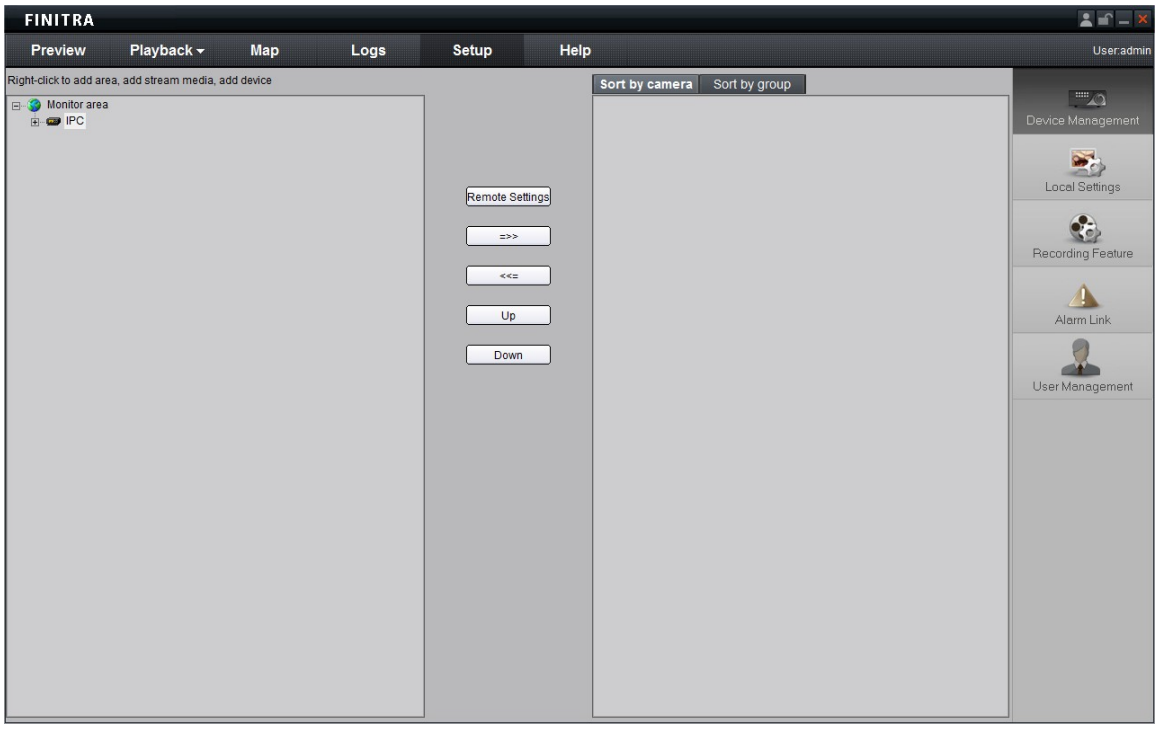


Fig. 4.2.12 Camera Adding Completed

Step 5: Click the *Preview*, and then double click the device name in the left tree to view the live video.

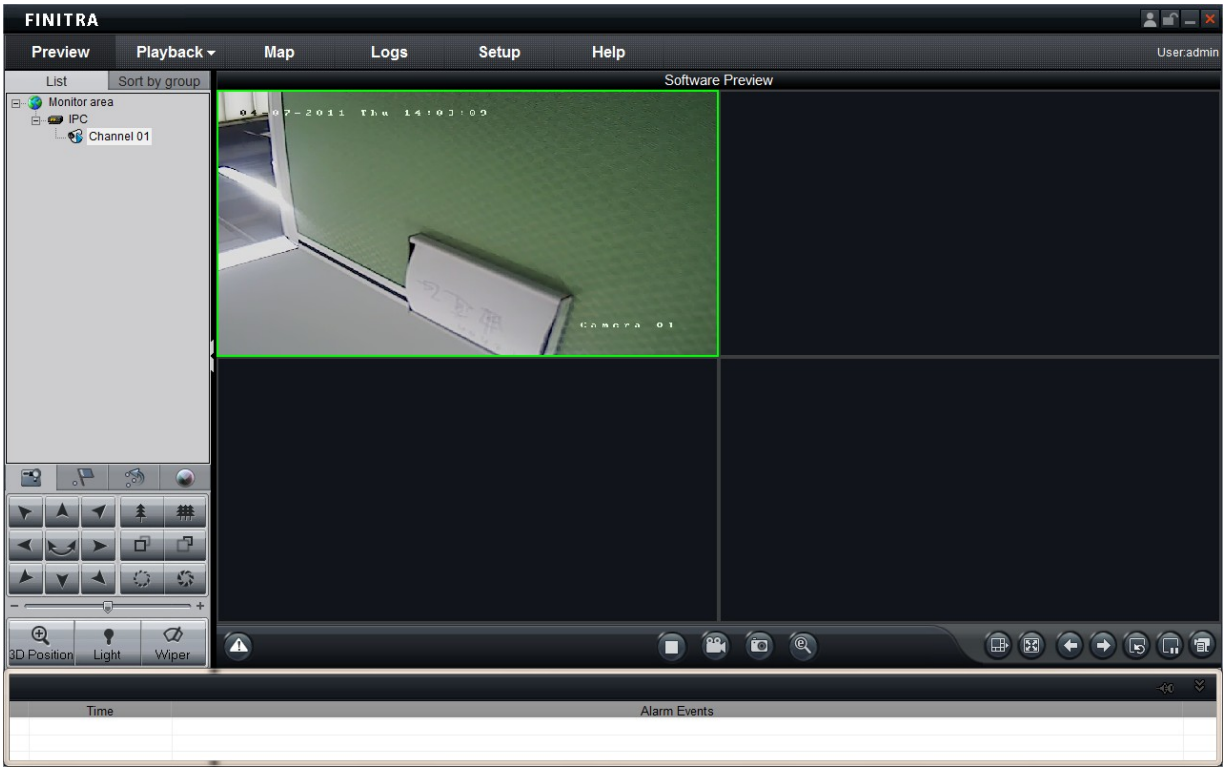


Fig. 4.2.13 Preview

Chapter 5 Access over Internet

5.1 Access network camera with static IP

When there is a static IP from an ISP, open some ports (such as 80 and 8000 ports) in the router. Then a user can visit it through a web browser or client software via the internet. The steps for port forwarding are different for each model of router. Please call the router manufacturer for assistance with port forwarding or visit www.portforward.com.

Note: Refer to Appendix 2 for a detailed explanation about Port Map.

Users can directly connect the network camera to the internet without using a router.

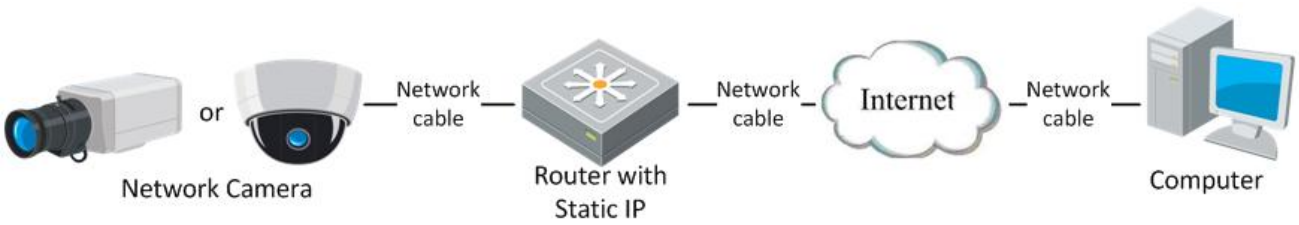


Fig. 3.1 Access IPC through Router with Static IP

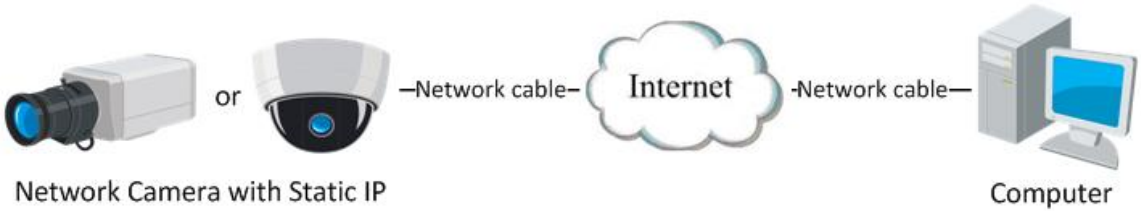


Fig.5. 2 Access IPC with Static IP directly

For the client software to view the camera, in the adding equipment column, select the normal model, and then fill in the IP info.

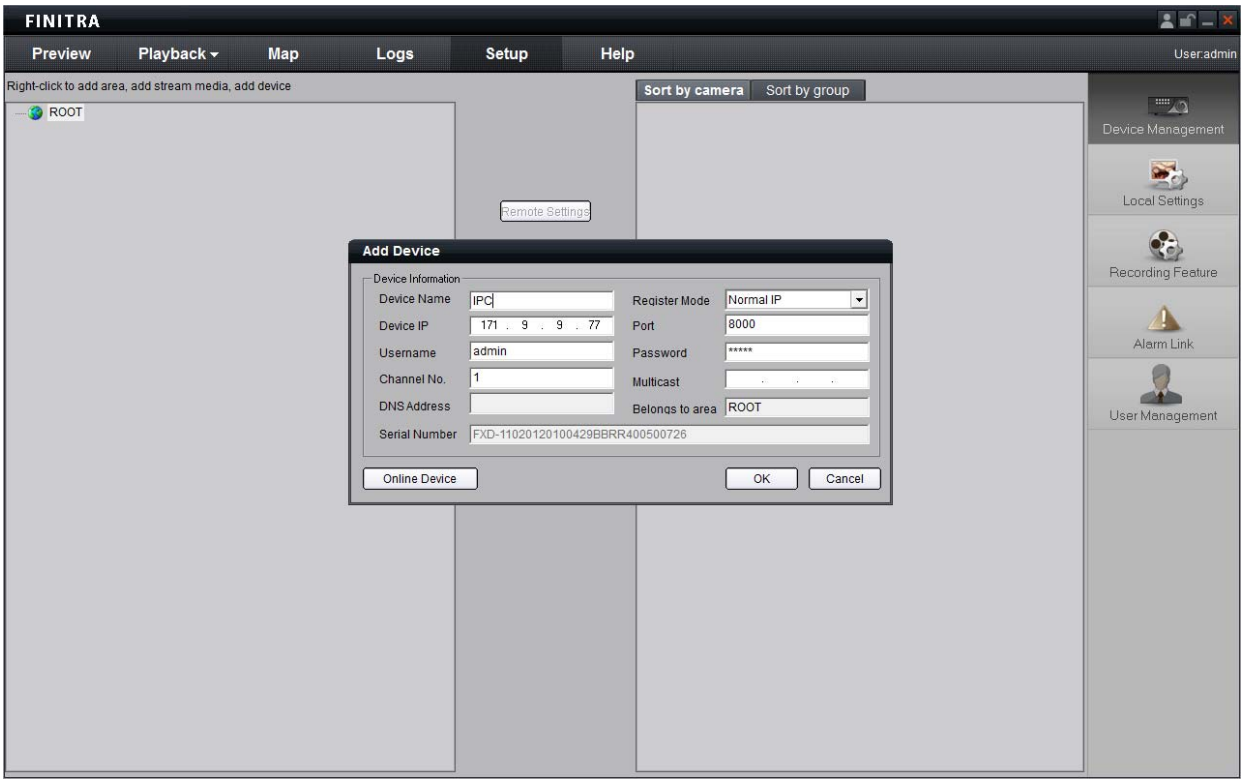


Fig. 5.3 Selecting Normal IP

5.2 Access network camera with dynamic IP

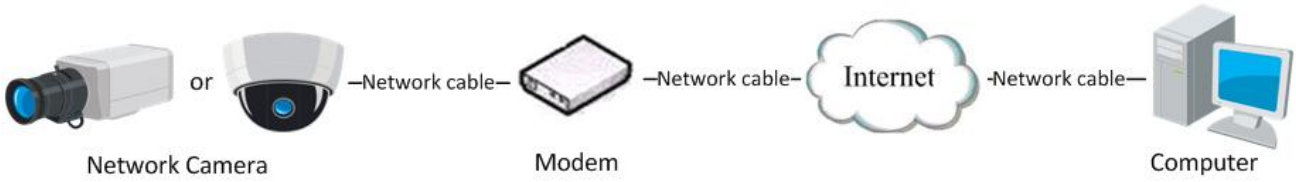


Fig. 5.4 Access IPC through PPPoE Dail-up

This camera supports the PPPoE auto dial-up function, connecting the camera to a Modem for dial-up access to an ADSL network to get a public IP address; First, through local network access to the network camera, select “Configure” → ”Right Click the Device”, “Remote Configuration”, and finally select “PPPoE Settings” under “Network Paramters” to fill in the PPPoE user name and password and confirm the password. Please restart the network camera after completion of configuration. Then the network camera can obtain a dynamic IP from an ISP operation business. However, the obtained IP address is dynamically assigned via PPPoE, so the IP address always changes accompanied with modem rebooting.

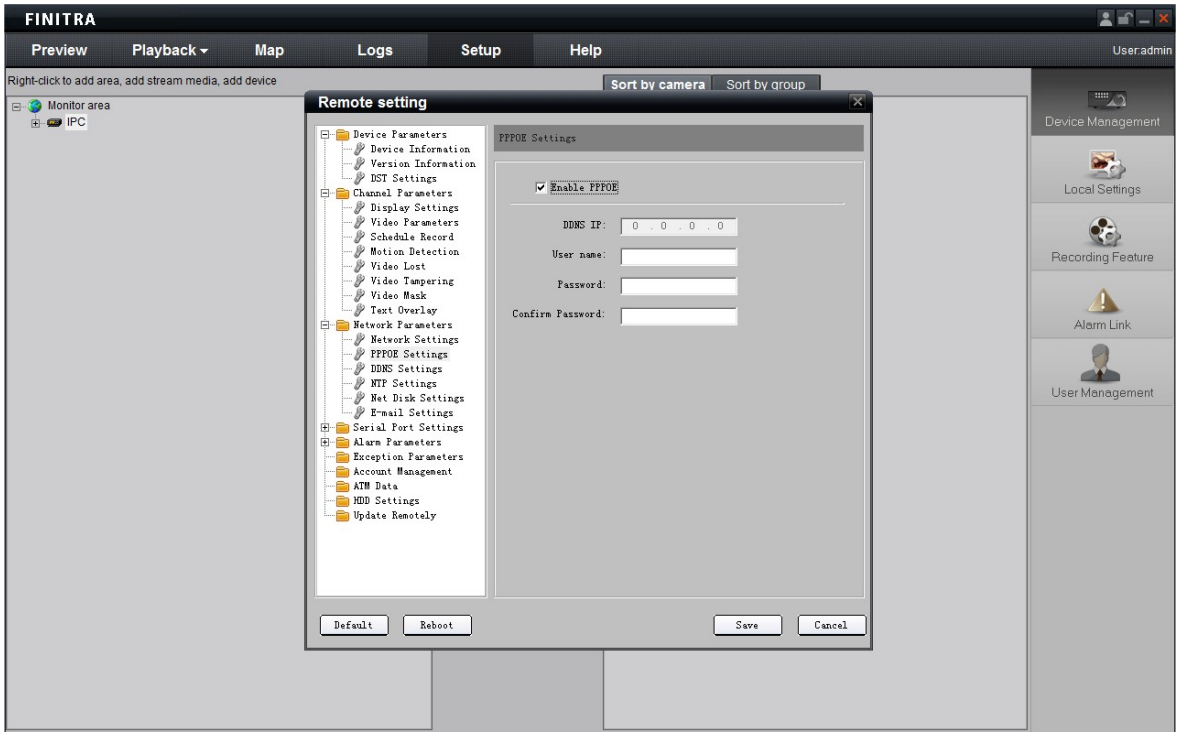


Fig. 5.5 PPPoE configuration Dialog box

It is inconvenient to view a network camera with a dynamic IP, therefore, users should register with a dynamic DNS service provider. (Such as DynDns.com)
Domain name resolution contains normal domain name resolution and private domain name resolution. First, we will introduce normal domain name resolution.

1. Normal Domain Name Resolution

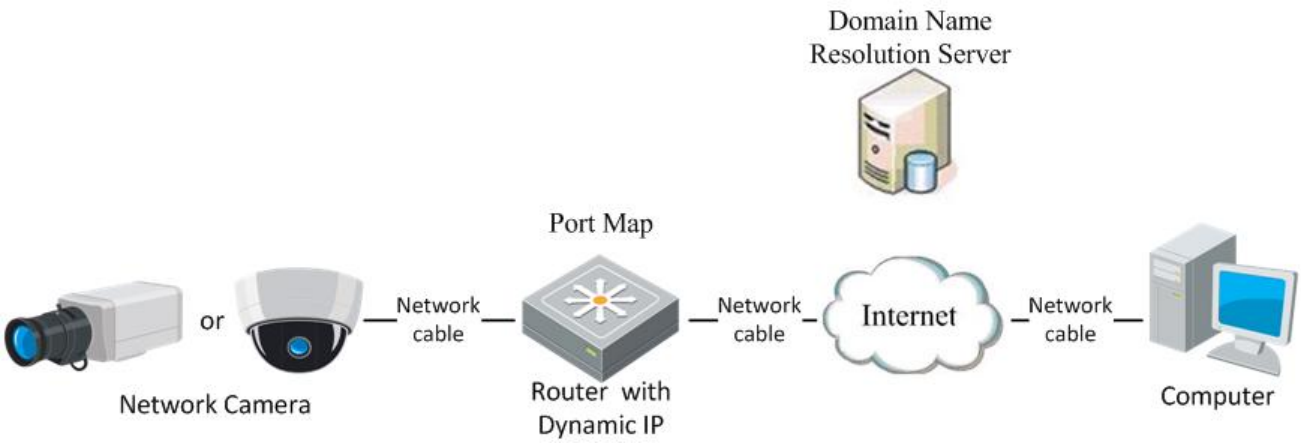


Fig. 5.6 Normal Domain Name Resolution

Apply a domain name from a domain name provider, then view the camera via the applied domain name. If the camera connects to the internet via a router, users should port forward the router. Please refer to Appendix 2.

Input domain names in the client software or IE to view the network cameras. Take the client software configuration as an example.

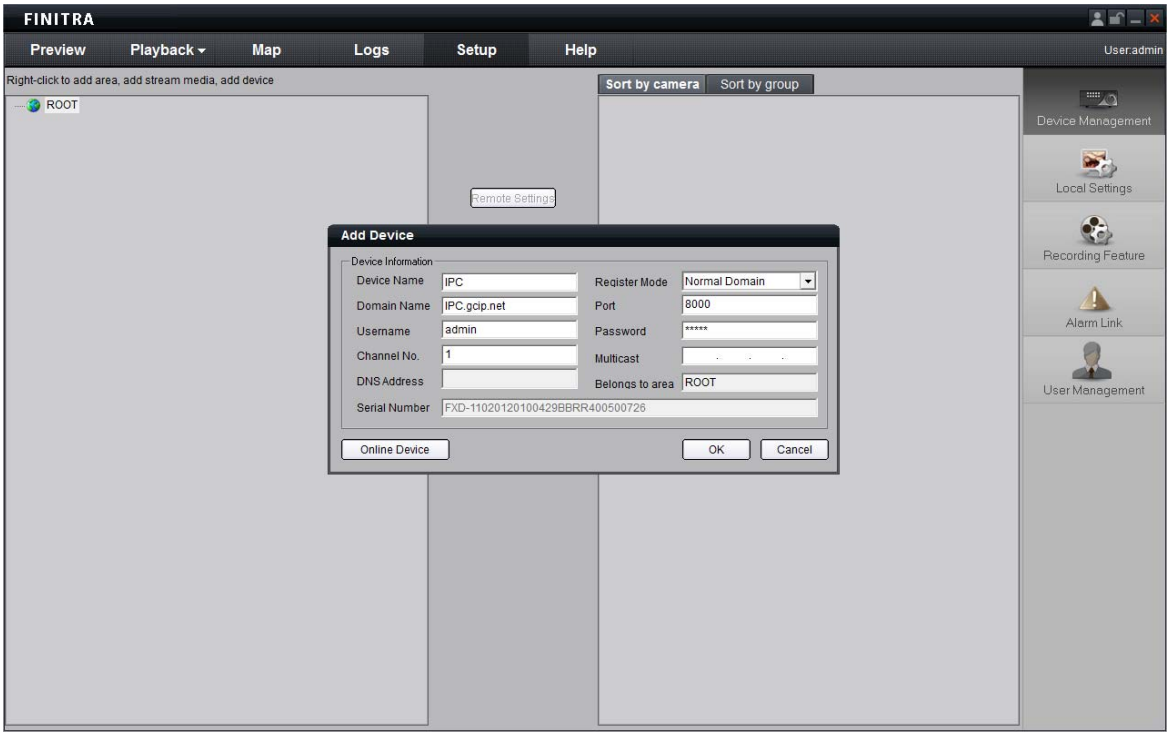


Fig. 5.7 Selecting Normal Domain Mode

2. Private Domain Name Resolution

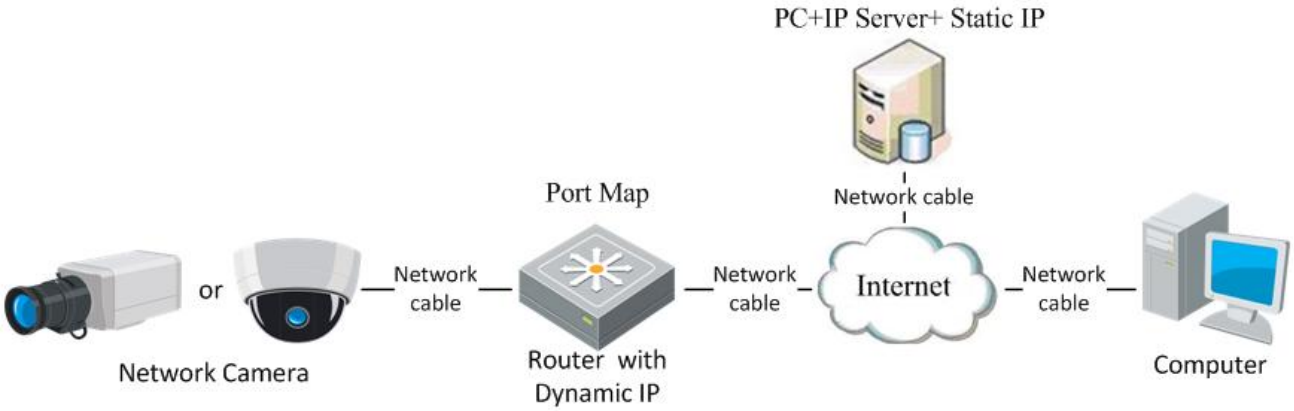


Fig. 5.8 Private Domain Name Resolution

A PC with a static IP which is running the domain name resolution service is necessary.
When the network camera connects to the internet through PPPoE and obtains an IP address, it will send its name and IP address to the resolution server. When the client software connects to the network camera, it will connect to the resolution server and tell the resolution server the expected camera's name. And the server will find the camera from all the registered cameras and send its IP address to the client software. Once the client software gets the IP address, it can connect the network camera.

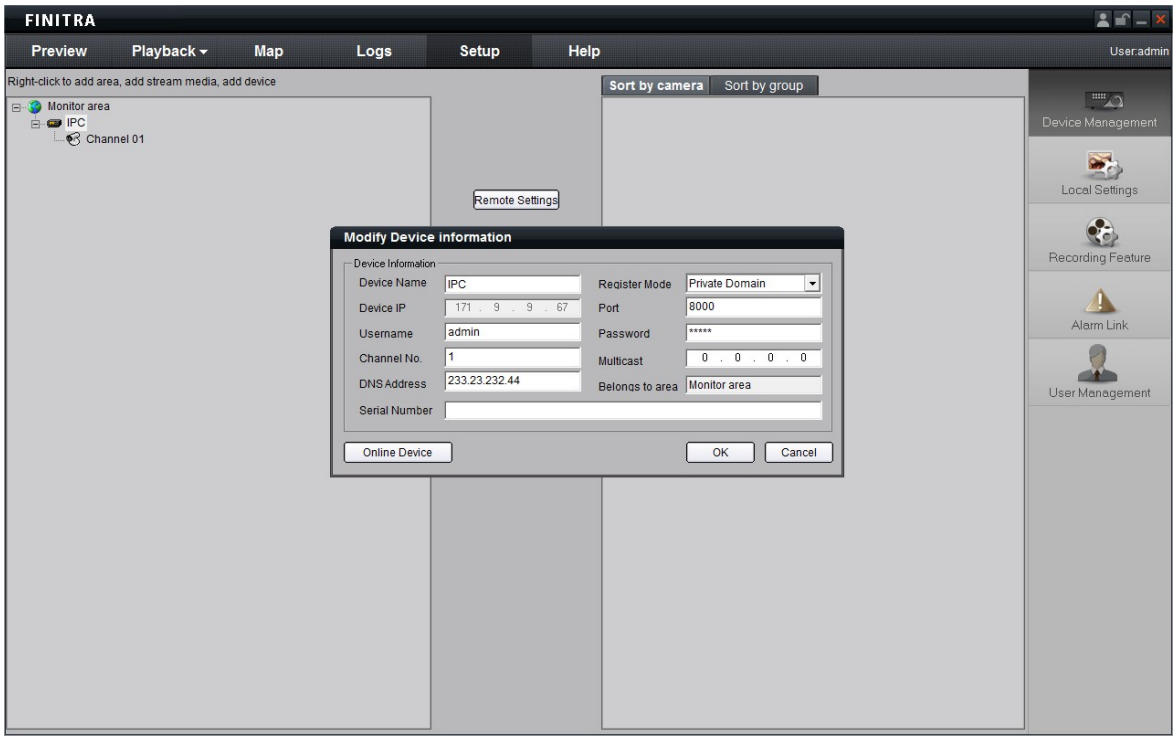


Fig. 5.9 Selecting Private Domain Mode

Chapter 6 Menu Introduction

6.1 Main Menu

Call preset 95 and the menu will appear on the screen.”IRIS +” means “enter”, while “IRIS -” means “cancel”. Press up / down to move the cursor, and press left / right to select the item.

Fig.6.1.1 Call 95th Preset

The main menu displays as below:

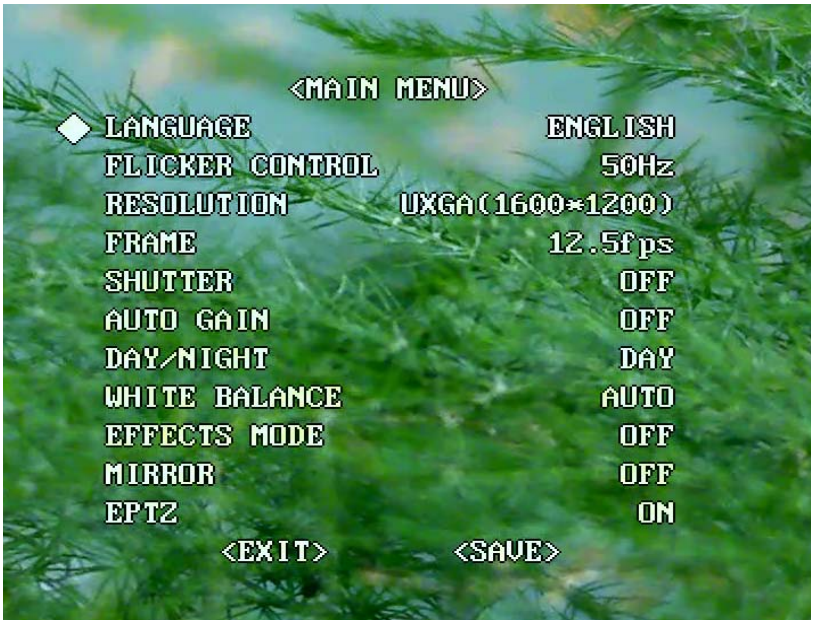


Fig.6.1.2 Main Menu

6.2 Menu Introduction of 2.0 Megapixels CMOS Network Camera

6.2.1 Language settings

Press left / right to select language between Chinese and English;

6.2.2 Flicker Control

Press left / right to select frequency between 50HZ and 60HZ in the FLICKER CONTROL item;

6.2.3 Resolution settings

RESOLUTION can't be changed by pressing left / right button; User can select resolution through "configuration" → "remote configuration" → "channel configuration " → "Resolution";

6.2.4 Frame settings

FRAME can't be changed by pressing left / right button; User can select resolution through "configuration" → "remote configuration" → "channel configuration " → "Frame rate";
The relationship between frame and resolution is as below table:

Resolution	*Max. Frame Rate*	*Max bitrate (recommended)*
	NTSC	
UXGA	10	4M
HD720p	15	3M
SVGA	30	2.5M
4CIF	30	1.5~2M
VGA	30	1.5M
Dcif	30	1.5M
2cif	30	1.5M
Cif	30	384K~768K
Qcif	30	384K~512K

Note: FXC-1201M's frame and resolution relationship is different from above table. Please refer to the specifications.

6.2.5 Shutter settings

SHUTTER can be adjusted by pressing left / right. And there are three options in this item: OFF, auto × 2 and auto × 5;
"OFF" means the regulation of the shutter exposure time is default;
"Auto × 2" means the regulation of shutter the exposure time is considerably wider;
"Auto × 5" means the regulation of the shutter exposure time is at its maximum.
The corresponding frame and resolution at different SHUTTER modes is as below:

	60Hz		
Resolution	OFF	Auto × 2	Auto × 5
QCIF ***CIF*** ***2CIF*** ***DCIF*** ***4CIF*** ***VGA*** ***SVGA***	30fps	15fps	5fps
HD720p	15fps	15fps	5fps
UXGA	10fps	10fps	5fps

6.2.6 Auto Gain settings

Press left / right to adjust AUTO GAIN level among OFF, low, middle and high;

6.2.7 DAY / NIGHT Settings

Press left / right to select DAY / NIGHT mode among DAY, NIGHT and AUTO;

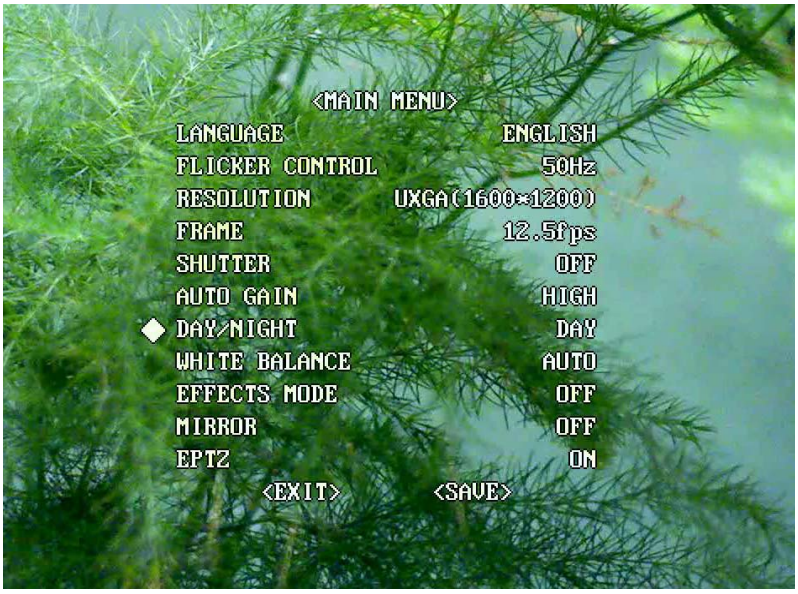


Fig.6.2.1 DAY Mode

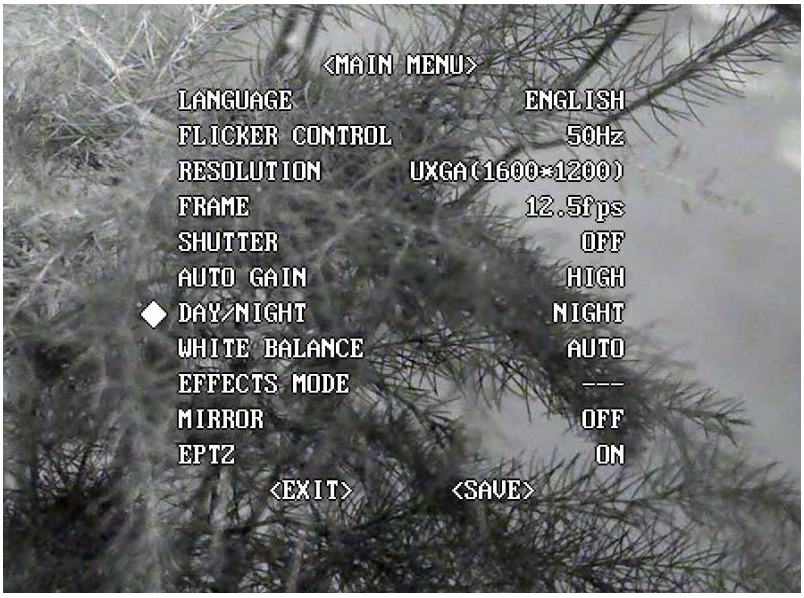


Fig.6.2.2 NIGHT Mode

6.2.8 White Balance Settings

Press left / right to set WHITE BALANCE AUTO or OFF;

6.2.9 Effect Mode settings

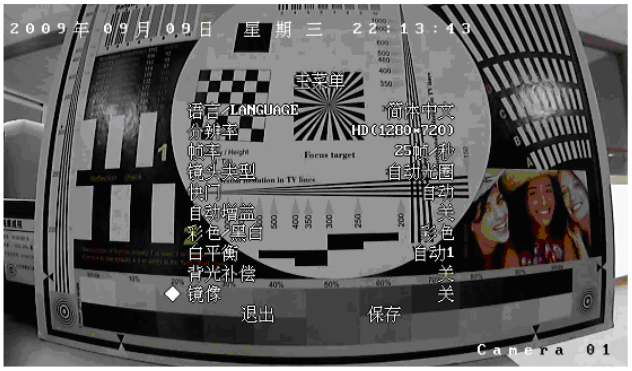
Press left / right to select EFFECTS MODE among OFF, SPEIA, NEGTIVE, SOLARIZE1 and SLOARIZE2;

Fig.6.2.3 SEPIA Mode

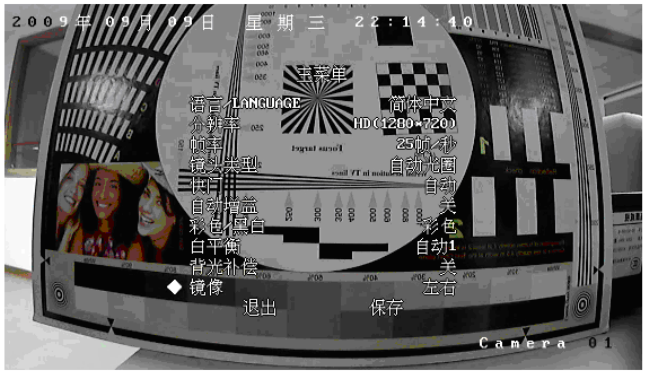
Fig.6.2.4 NEGATIVE Mode

6.2.10 Mirror mode settings

Press left / right to select MIRROR mode among OFF, LEFT RIGHT, UP BOTTOM, and CENTER;

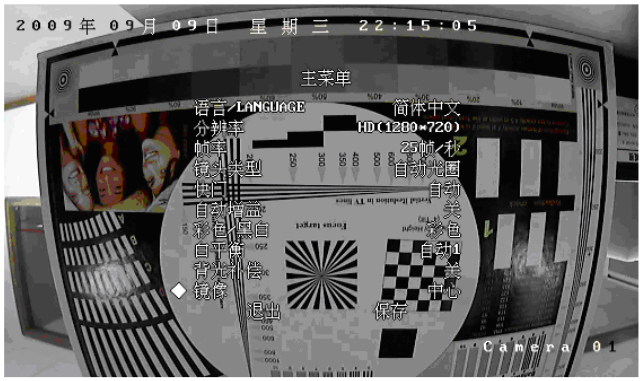


Off



Left Right

Up Down



Center

6.2.11 ePTZ settings

Press left / right to set ePTZ ON or OFF;
Under the resolution of QCIF/CIF/DCIF/2CIF/VGA/D1/SVGA, support pan\tilt\zoom operation, pan and tilt operation can be carried out only after zooming in, Support 127 preset positions (95 is excluded and used to call menu).Patrol path supports the preset of movement from Top left-hand corner of the screen to the bottom right-hand, supports 8 manual disposition patrols as well. HD720p resolution only supports pan and tilt operation, does not support zoom operation. UXGA resolution does not support the ePTZ function.

Chapter 7 Specifications and Drawings

7.1 Specifications

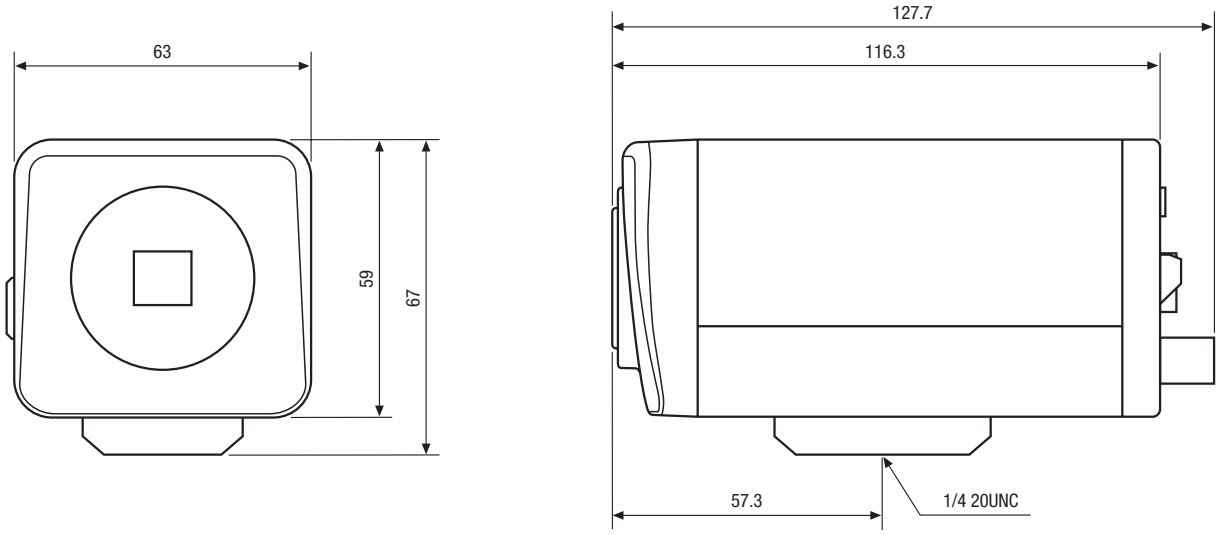
Type	**FXC-1201M**
Art. No.	**92715**
Series	eneo F
Resolution standard	HD 720p
System	day&night
Sensor size	1/3"
Imager	CMOS
Sensitivity (at 50% video signal)	0.5 Lux, at F1.2
Digital signal processing (DSP)	TI TMS320DM355 (digital media processor)
Synchronization	internal
Digital Noise Reduction (DNR)	no
Low speed shutter	no
Wide Dynamic Range (WDR)	no
Backlight compensation	no
IR cut filter	OLPF (Overlay Low Pass Filter)
Privacy zones masking	4 areas selectable
Activity detection	yes
Motion detector	integrated
Text display	supplied
Menu languages	English, Chinese
External adjustments	flange focus
External connections	RS-485, alarm input, alarm output, audio in/output, RJ-45, SD/SDHC slot
Audio support	yes
Audio	1/1 Line input and output
Alarm inputs	1, 1
Alarm outputs	1
Internal storage	SDHC card, SD card
Digital storage media	Apacer 1GB, 4GB, 8GB, 16GB; Kingston 1GB, 2GB, 4GB, 8GB, 16GB, 32GB; ScanDisk 1GB, 2GB, 4GB, 8GB, 32GB; Crucial 1GB; Trancend 4GB, 8GB, 16GB; KINGMAX 4GB, 8GB, 16GB; A-Data 4GB, 16GB
Compression standard	H.264, MJPEG
Resolution max.	1600 x 1200

Resolution	1600x1200, 1280x720 (HD 720)
Image transmission rate max.	30 pictures/sec.
Stream types	H.264, MJPEG multiple
Ethernet interface	100Base-TX
Web browser	MS Internet Explorer vers. 7.0 or higher
Network protocols	TCP/IP, DHCP, DNS, HTTP, RTCP, RTP, PPPoE, FTP, SMTP, NTP, SNMP
Remote configuration	remote software
Lens mount	CS mount
Digital zoom	no
PTZ support	yes
Serial interfaces	RS-485
Password protection	yes
Management Software Support	Finitra, Zelaris
SDK	available, SDK incl. HTTP-API and ActiveX
ONVIF	core specifications 1.02
Power consumption	4.0watts
Temperature range (operation)	-10°C ~ +60°C
Supply voltage	24VAC, 12VDC, PoE (IEEE-802.3af), 12VDC (+/-10%), 24VAC (±10%), 50/60Hz
Power over Ethernet	yes
Protection rating	n/a
Weight	650g
Dimensions	see drawings

Optional Accessories

The optional accessories currently available can be found on our Homepages: www.videor.com and www. eneo-security.com

7.1 Dimensional Drawings



Dimensions: mm

Appendix 1 SADP Introduction

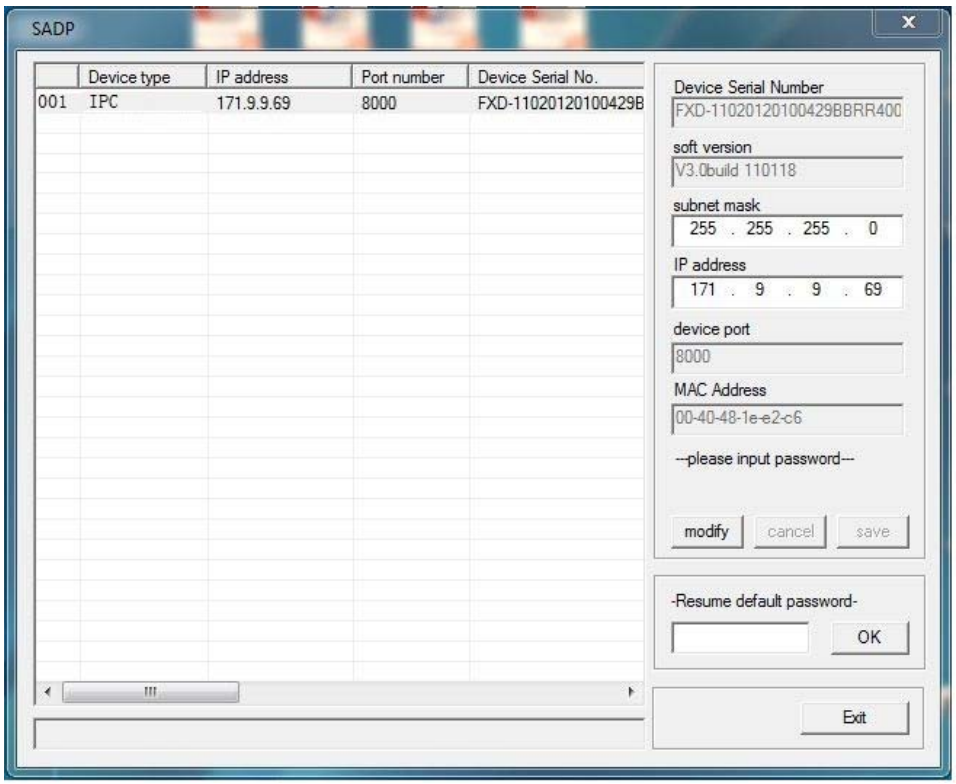
1. Brief introduction

SADP (Search Active Devices Protocol) is a kind of software which can automatically search network speed dome in LAN. User can modify the IP address, subnet mask and port of the device without visiting IP address of the device. Additionally, password of the super user in this device can be recovered as default.

SADP software needs to support SADP, so we should install WinPcap at first, which is placed at the directory of SADP software.

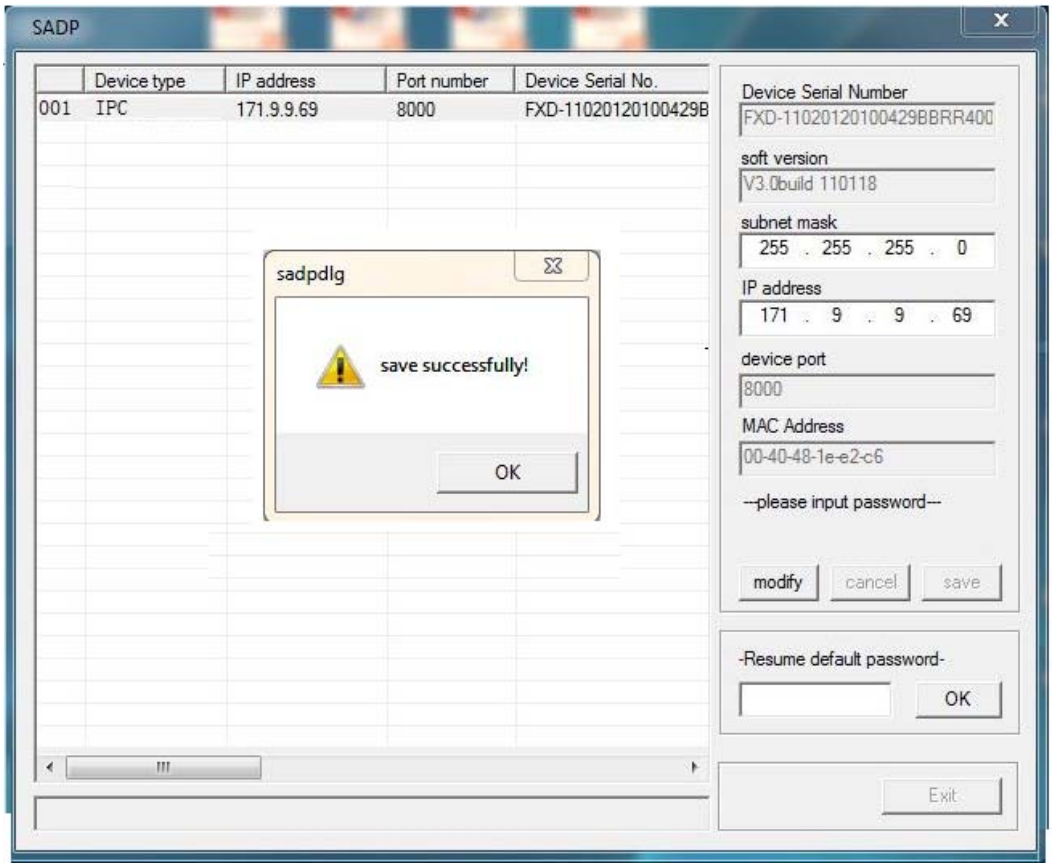
2. Search active devices online

After installing WinPcap, double click sadpdlg.exe. The software will start to search active devices in LAN, and device type, IP address, Port number, Device Serial No., subnet mask, MAC address, the number of channels, main control and encoding version and device initiating time are showed in the list, as following:



3. Modify device information

Select the device that needs modification in the device list, then basic information of the device will be demonstrated in the information column on the right. Click “modify” button to activate IP address, subnet mask, device port editing and password validating box, as follows:
Select the device that needs modification in the device list, then basic information of the device will be demonstrated in the information column on the right. Click “modify” button to activate IP address, subnet mask, device port editing and password validating box, as following:



Input new IP address, subnet mask, and port number, and click “save” button. If a dialog pops up, showing “saved successfully”, that means you have modified the configuration information; if “saving failed” turns up, click the “cancel” button to quit it.

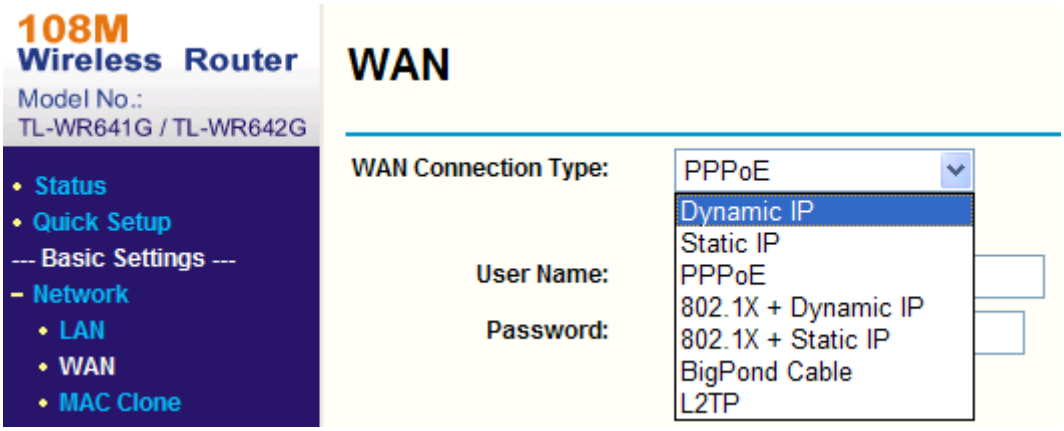
4. Recover default password

You can reset the password of the super user as “12345” in the case of a lost password.
Input certain validation code into the ‘Resume default password’ box, and click ‘OK’ to finish the administrator’s password initiating.

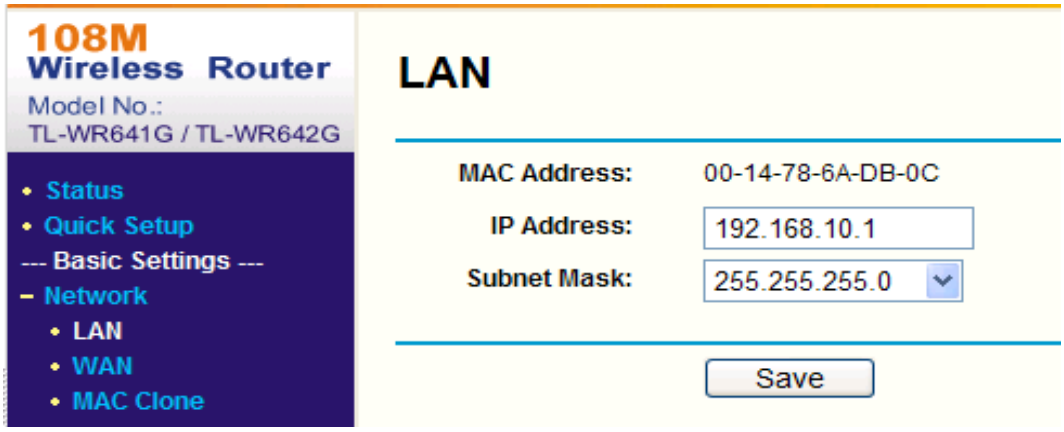
Appendix 2 Port Map

Note: The following setting is about TP-LINK router (TL-R410), which is maybe distinct from other router's setting.

1. Firstly, select the router's WAN connection Type. As the following Fig. shows:

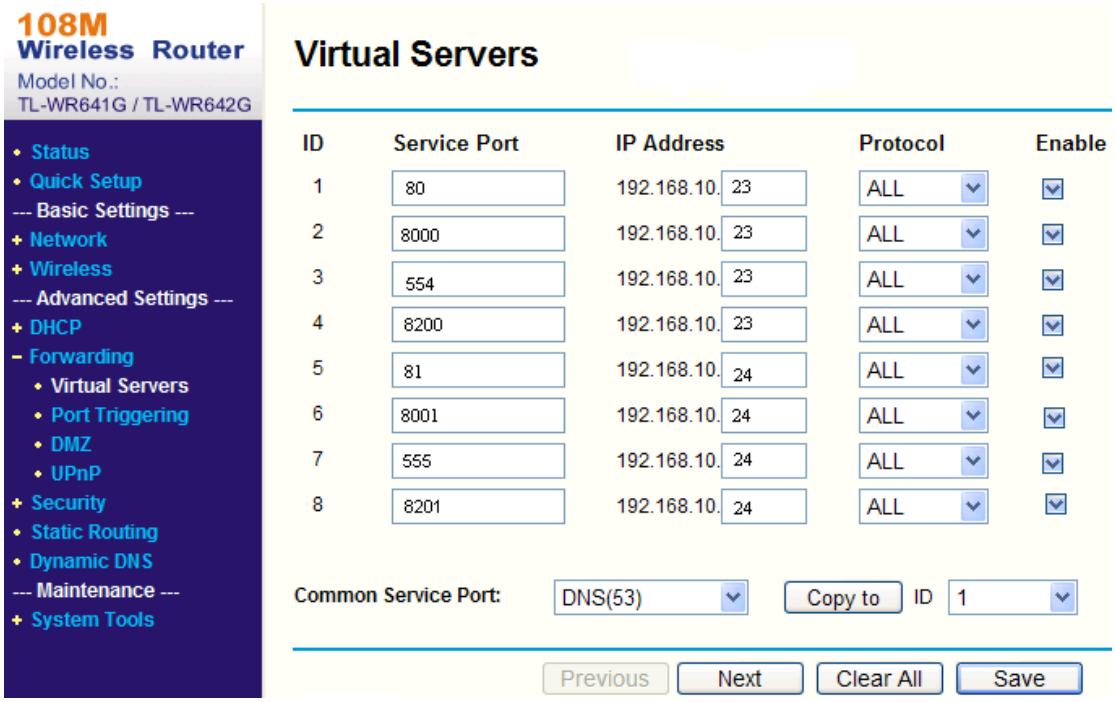


2. Set the "network parameter" of the router as the below figure. The setting includes subnet mask and gateway.



3. Set the port map in the virtual severs of Forwarding. By default, camera uses port 80, 8000, 554 and 8200. You can change these ports value with IE or client software.

The following figure gives the illustration. One camera's ports are 80, 8000, 554, 8200 and its IP address is 192.168.1.23. The other camera's ports are 81, 8001, 555, 8201 and IP is 192.168.1.24. Afterwards, enable all or TCP protocols. Enable the port map after pressing the 'Save'.



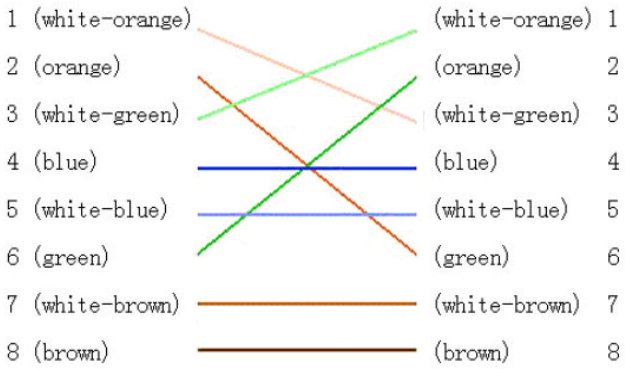
As the settings mentioned above, map the router's port 80 and 8000 to the network camera at 192.168.1.23; and port 81 and 8001 to the network camera at 192.168.1.24. In this way, user can access the 192.168.1.23 through accessing the router's port 80 and 8000.

Note: The port of the network camera cannot conflict with other ports. For example, some router's web management port is 80. User can amend the router's or the camera's port to solve this problem.

Appendix 3 Pin Definition

(1) UTP between the network port of camera and HUB (Direct Cable)

(2) UTP between the network port of camera and PC (Cross Cable):



eneo® is a registered trademark of Videor E. Hartig GmbH
Exclusive distribution through specialised trade channels only.

Videor E. Hartig GmbH
Carl-Zeiss-Straße 8 · 63322 Rödermark, Germany
Tel. +49 (0) 6074 / 888-0 · Fax +49 (0) 6074 / 888-100

www.videor.com
www.eneo-security.com

Technical changes reserved.
© Copyright by Videor E. Hartig GmbH 07/2011